Address in Medicine.

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THE PROGNOSIS OF DISEASE.

INTRODUCTION: THE IMPORTANCE OF THE SUBJECT.

GENTLEMEN,—I venture to state that at the present time, and for many years past, in spite of the extraordinary advances made in all branches of the sciences on which medicine depends, in spite, too, of the high degree of cultivation to which the art of medicine has attained in the last years of this century, the attention of physicians has been somewhat inadequately directed to the subject of prognosis in disease. Our minds have been much, probably too exclusively, intent on acquiring accurate knowledge of facts, and we are now encumbered with a mass of details and microscopic minutiæ so large and so pressing that few amongst us have had time for a meditative survey of them in order to apprehend the great general laws which underlie and govern them. Our views are thus apt to be narrow and distorted; we argue too much from the particular; we fail to see things in due proportion, and so less seldom than we might have a right judgment in things medical. If this is true for us as active practitioners, how much worse is the case for the modern student of medicine? The education of to-day is perhaps rather over-laden with details and somewhat barren of the inculcation of general principles: hence I fear we may come short in the production of men properly equipped to think for themselves, and to help in carrying forward our art towards greater completeness and perfection. We must, if we are to be great in medicine, sometimes lift our eyes from the microscope and away from the engrossing researches of the laboratories; and, rising to a higher platform, survey the larger fields and vistas which lie before and beyond us. If we do so we shall certainly come to know more of the inwardness and due proportions of matters which relate to the life of man as he passes through his present environment. We need both the talent of the ancient philosophers, who had an eye for general truth, and the qualities of the modern philosopher, whose eyes are so much set on particular facts. The problem now before our profession is to combine these in due harmony, and as I have expressed the opinion that we have somewhat failed in modern times to gather knowledge as did the ancients, I purpose to address myself in this prelection to a much neglected subject, that of prognosis[1] in medicine, considered by the light of our most recent attainments. This study takes us back at once to the great Father of Medicine, our supreme guide in this matter, who laid an enduring foundation for us 2000 years ago in his splendid treatises on the prognostics.[2]

HISTORICAL.

In recent times the literature relating to prognostics has been far to seek. I know of no work purely relating to the subject which has been published in this century.[3] The most remarkable book on prognostics is that of Prosper Alpinus,[4] a professor of medicine at Padua, who published his famous treatise in confirmation of the Hippocratic method in 1601, and an edition of which was issued at Leyden, with a preface by Boerhaave, in 1709. I am indebted to Dr. Munk for an acquaintance with these volumes, and no less for his kindness in handing to me for perusal the manuscript of his own unpublished oration on Prognosis, delivered before the Hunterian Society of London in 1858. From the latter I have learned how the study of Prognostics came to be disregarded towards the close of the last century. "Coincidently with the return from the polluted stream of Arabian medicine to the pure fountain of Grecian physic was the renewed cultivation of a rational and scientific prognosis. ..... It was in connexion with a humoral pathology that prognosis made the greatest progress and achieved its highest triumphs. ..... The doctrines of solidism, on the other hand, have uniformly proved inimical to the study of prognosis. ..... Prognosis was but little regarded by Hoffman and still less by Cullen. To the neglect it experienced from the luminary of the Edinburgh school its decadence in this country is to be attributed. The pupils of Boerhaave and of the school over which his name and example continued to shed lustre were still cultivating prognosis in all its minutiæ, and applying its rules with startling accuracy at the very time when Cullen's genius blazed above the medical horizon; and it was not until these had died off and Edinburgh had taken that place in public estimation as a medical school which Leyden had previously enjoyed that the regular, minute, and systematic study of a rational prognosis became extinct in this country." I think that a just consideration of the prevailing doctrines of pathology at the present time may encourage us to hope that renewed attention and study may henceforth be directed to the subject of prognostics. The exactness and precision of modern biological inquiry may fairly incite us to fresh research in this direction, and I think we have already some indications that such is likely to prove fruitful and profitable.

Thirty years ago the lamented late President of this Association, in his introduction to his "System of Medicine,"[5] declared that "the practical test of a true science is the power which it confers of 'prevision' or of knowing now what will follow hereafter. ..... When we can prognosticate with certainty medicine will have become a science. At present we only with different degrees of nearness approach this end. We may describe the 'probabilities' of a given disease, we may even measure them, we may accept or reject lives at insurance offices, or we may affix a numerical value to their duration; but we deal with doubts and not with certainties. Life is too subtle for us to know or measure all its possible contingencies." He further indicated that "in prognosis we have almost always two ends to be considered—the immediate effects of the present illness and its remote consequences upon life." "The former turns upon the degree to which great vital functions are interfered with; the latter depends upon the nature of slighter changes, of which pathology teaches us the meaning." After this interval of time it is of interest to note what the writer of the "System of Medicine"[6] just published has to state in respect of Prognostics: "As observation becomes more accurate, as the number of observed cases increases, and as classes are better and better distinguished the nearer will the physician be able to approach an accurate prognosis, though the time when any sufficient rule can be applied to individual cases must long be out of our sight; and the application of any approximate rules must long be subordinate to the instinctive tact of the educated physician himself, who alone can apprehend the sum of the peculiarities which must modify their application to individual instances."

We have here the views of two careful and experienced physicians, and a consideration of their opinions might well make one hesitate a little before embarking on a task such as I have set before me. I feel, however, that such an effort is called for and the duty of making it is one which may rightly be claimed from those who have had long and chastening experience of practice both in public and private; I feel encouraged in making the attempt by the thought that I may thus induce others to follow me in affording such knowledge as they may have in respect of matters relating to prognostics. It is certain that we can only make advances in prognostic skill by careful and patient study of the whole subject of semeiology, and on few parts of our art has greater light been shed during the last half-century than on this. We cultivate the study of semeiology for three reasons: First, to enable us to make a diagnosis; secondly, to direct the treatment of the case; and, thirdly, to help us to frame a prognosis. Everything, therefore, depends on an accurate appreciation of the symptoms and the physical signs presented to us in any case.

[1] = Prescience (Πρόνοια).

[2] Προρρητικόν, ἀ. Κωακὰι προγνώσεις Προρρητικόν β.

[3] I may, however, refer to the Cours de Médecine Clinique, troisième partie, Du Prognostic, par Leon Rostan, Paris, 1839. Observations on Prognosis, P. H. Pye-Smith, Guy's Hospital Reports, 1887.

[4] De Præsagiendâ Vitâ et Morte Ægrotantium, Patavii, 1601. The Presages of Life and Death in Diseases. Libri Septem. Translated by R. James, M.D. London, 1746, 2 vols.

[5] Vol. i., p. 21, 1866, Introduction, J. Russell Reynolds.

[6] Vol. i., p. 39, Introduction, Professor Clifford Allbutt.

If we err at the outset our treatment and our prognosis will also err. As I have just said, there is assuredly no lack of teaching in these days directed to the subject of semeiology in its several parts; but I think it must be conceded that our eyes and our minds are rather apt in consequence to dwell too much on our detailed notes and our manifold instrumental aids and too little on the patient, his personal peculiarities, and the intimate nature of his ailments. We thus miss the due recognition of noteworthy features proper to the whole case—features often eloquent and provocative of further inquiry when appreciated by the trained eye and the open mind accustomed to view the whole and not merely a part, and thus to see every point in due proportion and in proper relation to the rest.

PROGNOSIS AND PHYSIOGNOMY.

This difficulty meets us not seldom in respect of estimating the value of lives for the purpose of assurance. We have now to fill in a long schedule with a cumbrous mass of details, and a few minutes to do it in. The tendency is to be so engrossed in gathering such a number of facts that there is little time left for a review of them in the presence of the candidate, and it sometimes happens in my experience that the conclusions formed on reading through the document not seldom inadequately express the value of the life thus examined. The organs may be found in detail free from evidence of organic disease, but there may be appearances and features indicative of progressive failure not yet registrable by the stethoscope or the test tube of which the significance is of the last importance, and these may escape recognition and appraisement. The examiner is too busy with pen and ink and instruments to gauge the real inwardness and pregnant points of the case. A little more attention to the individual, his aspect, his gait, and his manner would sometimes be well repaid in a sounder appreciation of his life value. And the same holds good in daily medical practice. I am constantly training students to begin by looking at their patients. The first thing they commonly attempt is to percuss or to auscultate the chest. I try to make them form an opinion of the case by mere inspection, without asking a single question: to guess the age, occupation, habit of body, and tendencies. Having done this, they proceed to verify or correct their primary impressions, and this is a most wholesome method. It occupies much time, but the time is well spent and the value of it in after-life must be considerable. In semeiology the order is, first, symptoms, and, secondly, physical signs. Then comes the consideration of their relation to the whole case, and with this we have the indications for rational treatment. No two cases being alike, we have always to keep an open mind and have regard to what disease means to the particular individual before us, to consider how he is likely to bear it and to come through it, the personal factor being accurately considered in each case. Bearing in mind these points, and paying attention to the diathetic tendencies and the peculiar environments of each patient, we are then, and only then, in a position to frame a prognosis respecting his malady. And no less is attention necessary to discover, both in health and in disease, such indications as may be discovered from the physiognomy of each individual. Having had the good fortune, which I think may possibly have been shared by not a few of my present hearers, to have been trained in this study by my late preceptor (Professor Laycock of Edinburgh), I may declare here and now that I have constantly had occasion to appreciate the great value of it in aiding me in respect of both diagnosis and prognosis. This is a closed chapter of medicine to many, as I well know, but its study will well repay diligent attention to it and prove sometimes of singular value in practice. By itself this method is of course insufficient, but supported by careful physical examination, which corrects or confirms the primary impressions, it comes to the aid of the physician in no small degree, and puts him not seldom promptly on the track of morbid action or of degenerative processes. And in like manner, in the course of acute or chronic diseases, careful and trained observation detects signs and phases which, if duly noted and considered, may greatly help in framing a prognosis of the particular case before us.

A study of the prognostics as laid down by Hippocrates is useful to every practitioner of medicine and must always be so. It is difficult to be certain of the nature of some of the diseases to which he alludes, and sometimes in the case of those about whose nature there can be little doubt modern experience forbids our entire agreement with the great master. To take one example, *ἐπι αἵματος ἐμέτω φθορη*[7] (phthisis ab hæmoptoë), a question once much debated in the schools, has quite lost its force for us to-day, since we have ceased to believe that simple hæmorrhage into the pulmonary parenchyma can induce phthisis in the absence of the specific tubercle bacilli of Koch, and have instead accepted the view that the primary feature in the case is the malignant work of these parasitic microbes, with, as a secondary result, the hæmoptysis. It would prove an impossible task to attempt within the compass of this address anything like a complete study of prognostics as applied to all the diseases of which we have definite knowledge. I propose, therefore, in order to be methodical, to discuss the subject in relation to diseases generally of the several systems of the body, and I shall endeavour to be concise without being tedious.

ACUTE SPECIFIC DISEASES.

Taking first the large section of specific infectious diseases I will mention some points in relation to enteric fever. Hyperpyrexia is only of grave import when rebellious to ordinary cooling methods, and among these I do not include the use of cold baths. Obese and elderly patients are bad subjects for all fevers and acute diseases. The existence of chronic renal disease is incompatible with recovery from the continued fevers. Meteorism, delirium, subsultus tendinum, and tremor are always of serious import, indicating failure of nervous power. The presence of cardiac valvular disease adds largely to the danger. Carphology is, as declared by Hippocrates,[8] commonly a fatal sign, but I have known it persist for three or four days in a bad case and good recovery follow.[9] Early hæmorrhage is unimportant. Dicrotism of the pulse often precedes late hæmorrhage. This condition of the pulse signifies exhaustion and deep ulceration of the bowel. The more profuse the hæmorrhage the greater the danger; moderate hæmorrhage is rarely harmful. Vomiting in the third week may be the precursor of peritonitis. Epistaxis is not serious unless profuse, when it may prove fatal. Pregnancy is always a grave complication and abortion is common. I attended one case, however, in which the patient was six months advanced in pregnancy, and she made a good recovery and had a child born at term. An abundant eruption of papules does not denote any special gravity, and, *per contra*, absence of eruption certainly affords no ground for belief that the case is a mild one. Excessive diarrhœa is unfavourable. Perspirations, apart from other severe indications of weakness, are not important.

In the case of typhus fever we find cause for concern if there be a very copious eruption, especially of petechial character. Severe headache, delirium and stupor, insomnia, strabismus, extreme myosis, epistaxis, subsultus tendinum, carphology, incoercible hiccough, tympanites, and retention of urine are always grave. Early epistaxis is an unfavourable symptom. Coma vigil is always a fatal symptom. Nephritis, bronchitis, pneumonia, and parotid bubo are all of ill omen. Abortion rarely ensues in pregnant women with typhus fever. A presentiment of a fatal issue at the outset of a case is commonly a bad sign. Typhus fever is uniformly fatal to persons the subject of Bright's disease and very dangerous after the age of fifty years. The malignant varieties of the exanthemata and of diphtheria admit only of the worst prognosis at any age and under all conditions. The subjects of congenital heart disease are especially bad subjects for most of the exanthemata, and for scarlet fever in particular. The same is true, too, frequently for persons suffering from cardiac valvular disease, and the continued fevers are very dangerous for them. I have, however, recorded two cases of aortic reflux in which recovery occurred respectively after severe enterica and diphtheria.[10]

Prognosis is graver in the exanthemata according to the early age of the patient and the abundance of the eruption. High fever, delirium, hæmorrhages, membranous angina, laryngitis, and parotid bubo are of evil augury in scarlet fever, likewise suppression of urine from intense toxic glomerular nephritis. According to Kanthack and Sevestre, a high leucocytosis in scarlet fever indicates a pronounced reaction against a severe infection; a slight leucocytosis usually indicates a mild infection. The prognosis in the milder forms of scarlatinal polyarthritis is good. Purulent arthritis

[7] Aphor., vii., 79-80. [8] *Προρρητικόν*, δ.

[9] Murchison records similar experiences, and Dr. Cayley informs me that he has also witnessed the same favourable results. Treatise on the Continued Fevers, p. 226. First edition, 1862.

[10] St. Bartholomew's Hospital Reports, p. 1, vol. xxv., 1890.

is almost uniformly fatal unless confined ultimately to one joint. Measles is oftener a severer ordeal for adults than for children. Capillary bronchitis and collapse of large tracts of the lungs constitute the worst symptoms in measles as met with in children. Our recent experiences of influenza have taught us the special dangers of the peculiar pneumonia of that malady in the case of persons past middle life and of the grave cardiac asthenia that may long persist. The prognosis in cases of diphtheria is certainly less serious now than was the case five-and-twenty years since. We note the exceptional danger for children under two years of age. Early tracheotomy with aseptic treatment and intelligent nursing has alone saved myriads of lives that would certainly have been lost in my student days. Antitoxin treatment has decidedly, in my experience, proved of additional value in diminishing the death-rate. With all this we must yet accept Sir W. Jenner's dictum that "no case of diphtheria is unattended by danger." If a week elapses without laryngeal complications we may fairly hope that the larynx may escape invasion by membrane. After this our anxiety relates to the welfare of the heart and of the nervous power of the patient. The spreading specific neuritis with its varied symptoms constitutes a danger sometimes little short of that induced by laryngitis. Nasal diphtheria should always excite concern. A rapid and feeble pulse or an infrequent pulse are bad signs in any case. Vomiting is of evil augury, especially if rebellious. Epistaxis or other hæmorrhages indicate a grave case owing to profound systemic poisoning, inducing what the old physicians called "a dissolved state of the blood" in which diapedesis occurs. Albuminuria in small degree is almost the rule in every case and is hardly to be seriously considered unless it is in large amount and uræmic symptoms supervene. It is not unlikely that there may be a conjoint impregnation in some of the latter cases with scarlatinal poison. Delirium in diphtheria is always a bad sign. There is more risk of serious symptoms due to systemic intoxication in the adult and more danger from laryngeal infection in the child.

According to Kanthack and Lloyd well-marked leucocytosis gradually falling, together with decline of temperature, indicates a good reaction and justifies a favourable prognosis. Low leucocytosis, or absence of this, with fever is a bad sign. High leucocytosis, with sub-normal temperature, is also of bad augury. Other observers, however, are not in agreement on these points.[11] The question of leucocytosis as an element in prognosis will come before us again in relation to some other diseases. If variola attacks persons with Bright's disease a fatal issue is certain. The eleventh or twelfth days are the most critical, and laryngeal or pulmonary complications the most fatal. Erysipelas is likely to prove fatal if it sets in with severe constitutional disturbance and vomiting, especially in the aged and in previously intemperate persons. Phlegmonous erysipelas of the head is most grave and often fatal. In the newborn, if the navel is attacked a fatal issue is common. The toxin of erysipelas is deadly to the parturient woman, as was pointed out by Hippocrates.[12] In yellow fever an early high temperature is to be regarded as grave. Black vomit is not necessarily of fatal omen, but suppression of urine, delirium, convulsions, and coma almost certainly preclude hope of recovery.

Tetanus.—The teaching of Hippocrates holds good to this day in respect of the commonly fatal issue of "spasm supervening on a wound," and no less as to the better prognosis which may be framed in a case that has survived the spastic condition for some days. Rapid onset of spasm after injury, that is short incubative period, is more grave than slow or gradual onset of symptoms. The outlook is serious after abortion or during the parturient condition. The chance of recovery increases with each day of the prolongation of the disease, but the danger is great till the second week is passed. Death may occur a month after the onset of symptoms. The outlook is better if the spasms are confined to the jaw and the muscles of the neck and do not involve the trunk and limbs, also if they are neither severe nor frequent.[13] (I might venture here to affirm that smart purgation in these cases is perhaps not sufficiently practised.) The disease is more deadly amongst dark-skinned races. Our experience of specific antitoxin treatment is as yet insufficient to enable us to form a decided opinion of its value, but it appears to be encouraging.

CHRONIC INFECTIOUS DISEASES.

Syphilis.—The prognostics respecting this disease relate largely to individual peculiarities, habits, and environment, to the adequacy of treatment, and the degree and virulence of primary impregnation. It is certain that the greater number of persons so infected ultimately recover satisfactorily if they have been properly treated from the outset. It is equally certain that the character of the primary lesion does not enable us to prognosticate the ultimate evolution of the malady. Death is extremely rare in the second stage. Tertiary symptoms occur in about ten per cent. of all cases and in but few of these are vital organs affected. They may be met with in the third year, but some of the latest manifestations may be active half a century after primary infection. Many of these yield to vigorous treatment. In visceral syphilis death generally occurs under forty years of age. Cardiac syphiloma usually kills at the fifth climacteric. Syphilis acquired after the seventh climacteric is always more grave than in young adults, organic degenerative changes having generally begun by that time, and the prognosis in these cases is unfavourable. A graver prognosis attaches to the disease in the lower classes, who are often inadequately treated and who are carelessly exposed to hardships and intemperate in alcohol. Recent malarial impregnation and recent syphilis, with splenic enlargement, together form a very serious combination, and a fatal issue is common within twelve months in such cases.

Pyæmia and septicæmia.—If organisms be present in the blood of the patient and capable of cultivation from it the prognosis, according to Kanthack, is bad. Prognosis in relation to tuberculosis is a large question. The factors on which determination has to be made vary greatly with the individual and his environment. Without doubt the prognosis of all disorders of a tuberculous nature admits of a more hopeful view at the present time than formerly. Rational treatment following on exact pathology explains why this is so. The tissue resistance of the individual counts for much. Hughes Bennett taught, and I think correctly, that no disease was so often recovered from as tuberculosis. Peritoneal tuberculosis often ends favourably. Cerebro-spinal (meningeal) tuberculosis is the most deadly of all forms and but rarely is survived.[14] The genito-urinary forms of tuberculosis are all of grave import. General miliary tuberculosis, a veritable endanthem, is as fatal as any malignant disease of which we have knowledge. The phases of ordinary pulmonary phthisis vary according to the tissue resistance and proclivities of the individual. Without doubt a gouty habit of body tends to inhibit and retard tuberculous processes.[15] Valvular heart disease, with hypertrophy and cardiac dilatation, inducing pulmonary congestion, appear to be inhibitory. Pregnancy retards active change in the lungs, lactation aggravates it. Pulmonary emphysema, asthma, and chronic bronchitis delay the course of tuberculosis. Localisation of deposit or cavity to one apex, especially the right in males (J. E. Pollock), with absence of disease in the other lung, is of favourable import when associated with other satisfactory symptoms. As indicated by Hippocrates,[16] diarrhœa due to tuberculous enteritis occurring in any case of phthisis is of the worst omen, and no less so is the onset of laryngeal tuberculosis. Œdema and thrombosis of the veins of the legs commonly portend early death in any case. Aphthous stomatitis is also a sign of approaching death. This is a not uncommon occurrence at the end of many chronic and exhausting diseases, and justifies our informing the patient's relations that the powers of life are rapidly waning.[17] I have, however, sometimes known this condition to be

[11] Morse: Leucocytosis of Diphtheria. Boston City, Massachusetts Medical and Surgical Reports, 1895. "Leucocytosis is of no value in prognosis." Gabritschawsky: Annales de l'Institut Pasteur, 1894, vol. iii., p. 673. "A progressive hyper-leucocytosis in diphtheria justifies a bad prognosis." Ewart: New York Medical Journal, 1895, August 10th and 17th. "In unfavourable cases leucocytosis continues till death. In prolonged septic cases there may be an uninterrupted decrease of leucocytes till death. High leucocytosis = pronounced reaction, but not necessarily an unfavourable prognosis. Steadily decreasing leucocytosis usually accompanies a favourable course. Slight leucocytosis usually indicates a mild infection, but fatal cases may for several days show no increase or even a decrease of leucocytes."

[12] Aph. 43, Section v.; Aph. 2, Section v.; Aph. 6, Section v.

[13] Vide article on the "Prognosis of Tetanus," by G. V. Worthington, St. Bartholomew's Hospital Reports, vol. xxxi., p. 137, 1896.

[14] Vide case of recovery reported by Dr. Samuel West, Transactions of the Clinical Society, vol. xxviii., p. 230, 1895.

[15] Dr. Pye-Smith is disinclined to believe this. That the two diseases do not coincide is, he thinks, explained by their incidence in different periods of life.—Lumleian Lectures, 1895, p. 133.

[16] Aph., 14, Section v.

[17] I believe that Sir W. Jenner used to teach that when aphthæ appeared in cases of phthisis it was well to summon any of the patient's relations from a distance who might desire to be present at their decease.

removed and life to be sustained for some weeks subsequently. A red spongy condition of the free edges of the gums is to be regarded as a bad sign in pulmonary phthisis. Pneumothorax occurring in cases of early tuberculosis of the lung may exercise an inhibiting effect on the primary disease. At a later stage death is not long postponed after this accident. In tuberculous pyo-pneumothorax the practice of paracentesis may encourage rapid extension of tuberculosis.

CONSTITUTIONAL DISEASES.

Passing on next to consider some points respecting prognosis in various constitutional diseases I may refer first to diabetes. We have to deal with two main classes of patients thus suffering—the lean and the fat. The former present the worst cases, the disorder being more or less acute. As is now well recognised, the younger the patient the worse the prognosis. An originally good constitution counts for something even in these cases. Every additional decade of years helps towards a less grave, or immediately grave, outlook. Coma is less often met with as a fatal precursor after the age of thirty-five years, but it may prove to be the termination of cases at later ages after the onset of acute intercurrent disorders, such as pleurisy, pneumonia, or after pulmonary tuberculosis or gangrene of a limb. The fat diabetics, so-called, are often gouty and sufferers from a mild form of glycosuria. They are not seldom not diabetic in any true sense. They are, however, vulnerable, and their lives are, though often prolonged by care and judicious treatment, always precarious. Speaking generally, after forty years of age the outlook becomes less serious. Loss of knee-jerks in any case is to be regarded as a bad sign, and the presence of diacetic acid in the urine is grave and significant of danger sooner or later. Chronic cases of diabetes in the elderly may go on fairly well in persons of fine constitution for thirty years. I have never known recovery from coma in any instance. The only case I have read of occurred in a woman aged sixty-seven years, in whom after five hours of insensibility recovery followed the inhalation of oxygen gas, together with calomel purgation and the employment of ether, ammonia, and morphine. The patient made good progress on restricted diet and was fairly well six months afterwards.[18] I have seen threatenings of coma in diabetes distinctly averted by purgation with castor oil. Purpura (purpura cachectica) supervening on any chronic disease is of evil augury and is amongst the latest of malign symptoms in cases of cancer, tuberculosis, Hodgkin's disease, Bright's disease, and heart disease. Petechiæ are most often found on the lower extremities, but may occur on the back or indiscriminately. In hæmophilia profuse bleedings are more likely to prove fatal in the first climacteric period. The risks diminish somewhat with advancing years, and recovery, with rapid hæmopoiesis, may follow upon an attack so grave as to cause the patient to be almost ex-sanguine. The capacity for hæmopoiesis in these cases is quite remarkable. In rheumatic fever, if the seventh or eight day be surpassed and no cardiac complication has supervened, we may not expect the occurrence of any form of carditis or of pericarditis; but if a relapse occurs we may meet with this as a manifestation of the fresh attack. The younger the patient, especially if of the female sex, the greater the risk of rheumatic carditis, whether endocardial or pericardial, and the absence in early life of arthritis should lead to more solicitude as to the latter condition. Incoercible hyperpyrexia is generally fatal in rheumatic fever, as in other diseases.

DISEASES OF THE DIGESTIVE SYSTEM.

Cancer of the stomach commonly proves fatal within a year from the time a certain diagnosis is made. Those cases last longest and have less suffering in which neither orifice is involved. In cirrhosis of the liver if signs of toxæmia set in life will not be prolonged many days. Tapping of ascitic fluid may aggravate the nervous symptoms of such toxæmia. If a free, collateral circulation is gradually established between the portal and systemic veins life may be prolonged for some years. Copious hæmatemesis or melæna is of very serious import and a recurrence of either is generally fatal. Cancer of the liver is usually fatal within twelve or fifteen months, but sometimes rapidly growing tumours may carry off the patient in a few weeks. Cancerous growths of the peritoneum commonly kill within a year.

Gall-stones.—The prognosis of cases in which gall-stones are believed or proved to exist in the gall-bladder is always uncertain. We know that many may be present for years and give rise to no or few symptoms; also that a few may be present and cause serious attacks of biliary colic. Continued irritation from them may induce cancer of the gall-duct, the gall-bladder, and the liver. Obstruction of the small intestine, commonly the ileum, is sometimes a grave complication due to plugging by a biliary calculus. Modern surgery leads us to frame a more hopeful prognosis in many of these cases. A calculus may be removed from the bowel and the gall-bladder may be emptied of calculi with complete relief of all untoward symptoms. I am unaware of any methods of treatment, either by diet or by drugs, which can cause removal of any calculi already formed, but their further formation can certainly be prevented by appropriate medical procedures.

Typhlitis.—Many cases recover under judicious medical treatment. Perityphlitic abscess, if opened carefully about the ninth or tenth day, and the peritoneal cavity escape contamination with its contents, may generally heal favourably. Earlier surgical interference is very apt to lead to a fatal issue by toxic peritonitis (J. Berry). A gangrenous state of the vermiform appendix, if diagnosed, demands an early operation.

DISEASES OF THE RESPIRATORY SYSTEM.

In few diseases is the question of prognosis so important as in lobar pneumonia. Hughes Bennett used to teach, and all practical physicians now agree with the doctrine, that "a sthenic single pneumonia in a previously healthy young man gets well." Single or double pneumonia is fatal in a drunkard or when associated with delirium tremens. Pneumonia supervening in patients with pulmonary emphysema is fatal.[19] Herpes labialis is a sign of good augury in the great majority of patients and mostly accompanies cases in which a sharp crisis occurs on the sixth day. Grave and prolonged cases with deferred crisis and some pleural effusion not seldom present no herpes labialis.[20] Abundant rusty sputa, bright in colour, in a lean, even if elderly, patient, are a good sign.[21] Sweating and moderate diarrhœa at the time of crisis are also favourable indications. Sputa of the "greengage" colour or of bistre tint are not of good augury, and sputa of a uniform dirty orange colour (like anchovy sauce) are of especially bad omen. In pneumonia of the apex delirium may be anticipated both in children and adults. In the subjects of Bright's disease the prognosis is very grave. Indications of dextro-cardiac distension and general cardiac failure are always serious. Modern research has shown that leucocytosis is commonly of favourable import in pneumonia, and both laboratory experiments and clinical inquiry attest the value of this indication. My colleague, Dr. Kanthack, has for some time past lent his aid in investigating this point, and, with Mr. Lloyd, a former research clerk of mine, has fully confirmed the observations of Von Limbeck, Billings, and others.[22] They find that an active inflammatory leucocytosis during the fever indicates, as a rule, a good reaction, and is often

[18] Transactions of the Intercolonial Medical Congress of Australasia: L. W. Bickle, Mount Barker, South Australia, p. 97, 1893.

[19] According to Dr. Norman Moore recovery is possible in persons with a healthy (unaffected) lung weighing from 22 to 24 ounces. But if the unaffected lung is wasted by emphysema, and only weighs 15 ounces, there is respiratory incapacity, and no possibility of maintaining life till resolution occurs in the affected lung.

[20] Pneumonia of septic origin, as from drain poison, is commonly fatal, and herpes is rarely met with in such cases.

[21] "The less the weight with a given height and the more red blood in the sputa the better the chance for the patient" (Sir W. Jenner).

[22] Billings, on Pneumonia, Johns Hopkins Bull. v. 43. 1. If favourable = marked leucocytosis during fever. 2. Prognosis in cases, showing a complete and continuous absence of leucocytosis is, as a rule, unfavourable. 3. The presence or absence of leucocytosis only shows the virulence of bacterial poison; it is not a criterion of absolute prognosis. Ewing, New York Medical Journal, December, 1893. It may be said that a considerable leucocytosis is no indication that the case will pursue a favourable course. In several instances when recovery followed high leucocytosis was found at the time when the condition was thought to be hopeless. In severe forms of pneumonia slight leucocytosis is a very unfavourable sign. (Ewing only made a single examination and does not consider the temperature chart.) Von Limbeck, Croupous Pneumonia, Klinische Pathologie des Blutes. In the majority of cases there is a more or less considerable inflammatory leucocytosis—that is, increase of the multinuclear, or neutrophile, or finely granular eosinophile cells. Often the leucocytic and the temperature curves run a parallel course. A good leucocytosis during the fever, as a rule, means a good reaction, and is often, though not always, a good prognostic sign. Absence of leucocytosis is often, if not always, a bad prognostic sign. (This agrees with the animal experiments of Tschistovitch.) (*a*) Highly virulent cultures of pneumococci in rabbits = no leucocytosis or diminution of leucocytes, and rabbit dies. (*b*) Weaker cultures = marked leucocytosis and animal survives. (*c*) If animal comparatively resistant (dog) comparatively slight leucocytosis.

though not always, a good prognostic sign. The multinuclear or neutrophile or finely granular eosinophile cells are those which are increased in number. Absence of leucocytosis is commonly a bad sign in any case. Diminished leucocytosis with falling temperature is found by Kanthack and Lloyd to be a good sign. Continued high pyrexia with low number of leucocytes is a bad sign. They noted that persisting or increasing leucocytosis with fever is of favourable import. The presence or absence of leucocytosis *per se* is not sufficient for a satisfactory prognosis, but, taken with the accompanying temperature (and the curves of the two processes are often parallel), it may prove a valuable and favourable indication.

Experimental research on animals confirms these views, since Kanthack and Römer[23] found that on injecting pneumonic bacterial toxin, if recovery occurred there was, first, a sudden fall in the number of leucocytes of short duration, followed, secondly, by a rapid rise of them, together with fever; and, thirdly, persisting leucocytosis with a gradual disappearance of the excess of leucocytes as the temperature fell. If a fatal dose was injected the leucocytes diminished and remained so, the temperature becoming sub-normal. Kanthack's researches show further that if the specific organisms (pneumococci) are present in the blood and can be cultivated from it the prognosis in pneumonia in the human subject is bad. In diabetics pneumonia is fatal. In gouty persons the prognosis is grave, but many of them recover, and recurrence is not uncommon in after-life. In the aged and debilitated the outlook is always serious. If gangrene of the lung occurs the case is almost invariably fatal. Delirium, dry tongue, lividity of face, carphology, cold sweats, with falling pulse, chilliness of the nose and extremities, betoken a fatal issue. Pneumonia occurring in persons with valvular heart disease is commonly fatal. Pulmonary fibrosis, whenever met with, is an indication of chronicity. As a conservative process it induces protraction of any morbid condition. The tendency to fibrosis is significant generally of resisting power, and pertains only to persons of certain diathetic proclivity, more especially the arthritic. Clubbing of fingers, nose, and toes is a correlative hypertrophy associated with it in most instances.

Broncho-pneumonia.—Spare and lean persons are better subjects than obese ones for this disease and this applies to all ages. Sarcoma and most of the malignant new growths in the lung usually destroy life within six or eight months, but they may kill more rapidly than this.

DISEASES OF THE CIRCULATORY SYSTEM.

Diseases of the heart.—The outlook is generally better than it was half a century ago. Pericarditis of rheumatic nature is very rarely fatal *per se*. I never meet now with the extensive effusions which were common thirty years ago and which led to fatal syncope. In Bright's disease pericarditis is commonly fatal, and septic pericarditis is uniformly so. With the practice of aseptic surgery purulent pericarditis is no longer to be regarded as necessarily fatal. Tuberculous pericarditis may be rather protracted, but is beyond recovery. Pneumo-pericardium is commonly fatal within two days. The principles on which a prognosis is framed in respect of valvular disease are now well understood. All depends on the constitutional powers, habits, and environment as regards the integrity and nutrition of the cardiac muscular fibres. Remarkable cases of longevity are on record, even where the worst and most dangerous form of such disease is present—aortic reflux; and intelligent treatment, instigated by accurate physiological research, has much to do with securing long immunity from fatal issue in all the varied evolutions of these diseases. I have already referred to the danger of continued and other fevers and of lobar pneumonia in such cases. Pregnancy may be well borne in many instances of mitral disease, the worst of these, however, being examples of stenosis, a condition commoner by far in women than in men. In cardiac dilatation with myocardial degeneration, tumid liver, and dropsy, a commonly fatal sign is Cheyne-Stokes respiration. This is also met with in arterio-sclerosis, uræmia, and cerebral apoplexy with greater frequency perhaps than in the last stage of cardiac disease. It is certainly one of the worst signs in any case, yet I have on many occasions known it to pass away and some measure of recovery ensue. This is more particularly true of uræmic states.[24] Rupture of the heart is generally promptly fatal, whether on the right side from injury or on the left as a result of muscular degeneration. Life may, however, be maintained for some hours or even days. Tachycardia demands a very cautious prognosis. Sudden death may occur in a paroxysm. The outlook in Graves's disease is uncertain; one case in three may recover; death may be sudden. Bradycardia is less grave as a symptom, unless it depends on uræmia or certain toxins, or occurs in association with cerebral hæmorrhage, tumour, bulbar disease, or disease of the cervical spinal medulla. Prognosis in angina pectoris relates to the condition of the several structures of the heart and of the arterial system generally. When aortic reflux is present the prognosis is most grave, and if advanced arterio-sclerosis exists the same must be said. True angina is rare before the sixth climacteric. Pseudo-angina never kills.

Congenital malformed heart.—In the viable class of cases life is rarely prolonged over puberty, the lesions being chiefly dextro-cardiac. These patients are liable to tuberculosis and are bad subjects for specific infectious diseases. A better prognosis for longevity attaches to lesions of the aortic orifice, which are, however, rarely encountered. Life may be prolonged to the third decade in these cases. Ulcerative endocarditis (arterial pyæmia) is almost always fatal, only sub-acute forms affording instances of recovery. The disease may last but a few days or may persist for more than a year before proving fatal. The prognosis is particularly grave if infective organisms are detectable in the blood of the patient and can be cultivated from it.[25]

Aortic aneurysm.—No certain prognostics can be laid down in cases of this disease. Life is sometimes prolonged for ten years or longer. Sacculated aneurysms of the ascending part of the thoracic arch, pressing forwards, are commonly very chronic, and cause least interference with vital structures, but they may, like other aneurysms, vary in the direction they take from time to time. In aneurysm of the abdominal aorta the prognosis is always grave. Arcus senilis is perhaps more generally recognised as a diagnostic than as a prognostic sign of a degenerated vascular system. By itself it is no sign of grave import. It may begin in the third decade of life, and death not occur for fifty or more years subsequently. Extreme arterial decay may be present and in progress without this indication.

Arterial sclerosis and atheroma.—Few pathological changes are apparently more capricious than arterial sclerosis and atheroma. With fairly soft radial and temporal arteries there may coexist extreme atheroma of the aorta or of the cerebral arteries little or altogether unsuspected, and, *per contra*, hardened peripheral vessels may be no indication of similar conditions in the arteries of more essential and vital parts, such as the heart and brain. We may explain these seeming anomalies by reference to varying local conditions of blood pressure, as shown by Oliver. These facts compel us to frame a not too confident prognosis in many cases of suspected widely-diffused arterial decay. We have also to bear in mind the distinction between brittle and tough degenerate vessels.

DISEASES OF THE BLOOD AND DUCTLESS GLANDS.

Simple anæmia in young women is apt to recur, but most cases will recover if vigorously treated at intervals for three years. Pernicious anæmia admits now of less grave prognosis than formerly owing to treatment with arsenic and marrow. Relapses are common. Osler knows of no cases in males that remained well for five years. Examination of the blood may help us in prognosis. Kanthack considers that in all forms of anæmia a steady diminution of leucocytes is a bad sign, and no less grave is an increase of the nucleated red corpuscles with a progressive diminution of hæmoglobin.[26] Leukæmia generally proves fatal within two, or at most three, years. The pure lymphatic form is the gravest. Hæmorrhagic tendency is of evil augury, and life is not of long duration after severe bleedings, internal or external.

[23] Observations on Animals, Kanthack, Römer, &c. On injecting bacterial toxins if recovery: (*a*) A sudden drop of leucocytes of short duration; (*b*) this is followed by a rapid rise, together with rise of temperature; (*c*) leucocytosis persists while temperature falls, and then gradually disappears. If fatal dose injected: (*a*) Leucocytes diminished; (*b*) remain so, temperature also generally sub-normal. (I am indebted to Dr. Kanthack for these notes.)

[24] My colleague, Dr. Ormerod, has known recovery to occur in a case of spinal sclerosis in which Cheyne-Stokes respiration was present for some time.

[25] Dr. Kanthack informs me that he examined over twenty cases of septicæmia or endocarditis, and whenever organisms were found in the blood of the patients they died.

[26] In recording examinations of the blood it appears to be necessary to direct the attention of observers to the absolute importance of recognising the specific varieties of leucocytes as described by Ehrlich.

A gradual disappearance of the eosinophilous leucocytes is a bad sign in spleno-medullary leukæmia (Kanthack).

Hodgkin's disease.—Most patients die within two years. Recovery is rare, but certainly occurs. The disease may last, with periods of quiescence, for four or five years.

Addison's disease.—A fatal result is usual within two or three years, but life may be prolonged for six or eight years, including periods of temporary improvement, exacerbation of urgent symptoms alternating with remissions of restored vital power.

DISEASES OF THE KIDNEYS.

Anuria of the obstructive variety, unless relieved by surgical measures, generally proves fatal within two weeks. Sometimes life is prolonged with singularly few symptoms for three weeks. In a case under Sir James Paget's care death did not occur till the twenty-second day.[27]

Albuminuria.—The prognosis in respect of this symptom is only to be framed by full consideration of all the features of each case. We have but little knowledge respecting the issue of cases of so-called cyclical albuminuria of young adults, chiefly male subjects, but may believe that many of such patients entirely recover. After the seventh climacteric slight albuminuria, with finely granular casts, may occur for many years without giving rise to important symptoms. Chyluria of the non-parasitic variety may last for many years without disturbance of health. Chronic nephritis, tubal, interstitial, or tubulo-interstitial, often runs a protracted course. Prognosis can be framed only by a consideration of all the personal and diathetic factors in each case. I have long been convinced that there is great variation in the course and outcome of chronic parenchymatous nephritis; and while some patients rapidly pass into conditions beyond recovery others hold on for many years, passing large quantities of albumin and degenerating tube casts, with little or no dropsy, no cardio-vascular changes, enjoying, moreover, very fair general health, so long as care in all respects is taken. In one case known to me a patient was given a year to live. This was over twenty years ago, but this gentleman is now in practically good health, although constantly passing albumin and casts. I am sure that many such patients do fairly well, and that by steady perseverance and treatment remarkable improvements occur—improvements sometimes owing to no particular drug or dietary. Many of us have known of such cases and have seen uræmic conditions arise again and again, with retinal hæmorrhages, retinitis, cardio-vascular changes, severe dropsy, and yet a marked improvement has set in and surprised us. Thus we think less gravely of uræmia than our preceptors were wont to do, and by modern treatment with drugs, and occasionally by the older treatment of venesection, we find this grave condition more amenable than was formerly the case. I have known attacks of uræmic convulsions with Cheyne-Stokes respiration to pass away together with other symptoms after many months of apparent stasis and incoercible indifference to orthodox treatment. The personal factor and tissue proclivities must, therefore, be reckoned with in each case, and we have thus to regard the patient more steadfastly than his malady. Uræmia in cases of interstitial nephritis is altogether a more grave condition, and in a chronic form without convulsions, but with more or less coma and stertorous respiration, generally precedes a fatal event. Epistaxis, hæmoptysis, or hæmaturia, or, indeed, any hæmorrhagic flux, is to be reckoned salutary in many cases of contracting granular kidney, as probably averting an intraocular or a fatal cerebral hæmorrhage.

DISEASES OF THE NERVOUS SYSTEM.

Neuritis.—Taking the whole group of conditions due to neuritis, a somewhat large and varied one, we may affirm that our prognosis is guided by consideration of the etiology and personal factors in each case. Early recognition of the nature of the disorder and of the peccant matter which has induced it is no less important than early treatment. The cases often last for months and years, but the results are quite remarkable if treatment be persisted in. I therefore regard the prognosis as generally favourable in cases of local neuritis (of which simple facial palsy is an example) and in cases of polyneuritis, febrile or toxic. Of the latter, saturnine neuritis is graver by far than arsenical. Endemic neuritis, or beri-beri, if early treated is not so serious a malady as is commonly supposed. Primary optic neuritis is always a serious symptom. Tobacco amblyopia is as a rule recovered from. Peripheral facial palsy, without electrical changes, usually is recovered from within three weeks. With transposed electrical reactions we may not look for recovery much under three months. With electrical reactions of degeneration the outlook is tedious, and from twelve to eighteen months may pass before recovery is complete. Traumatic facial palsy may be permanent.

Ménière's disease.—The prognosis is always uncertain. Recovery may occur, but deafness is the most frequent result. The symptoms may persist through life. In torticollis complete recovery is rare. In essential paralysis of children the outlook is certainly less grave than formerly if assiduous electrical treatment be long carried out from the outset. In locomotor ataxia no absolute cure is to be expected, and the outlook is bad, though life may be prolonged for many years. Cases setting in violently are often devoid of the characteristic later symptoms and an arrest of the disease may ensue. This is especially noted after the occurrence of early optic atrophy. In aphasia the prognosis is only hopeful in the young, who may be educated again in the right cerebral hemisphere.

Cerebral apoplexy.—Prognosis in this condition chiefly relates to the particular locality involved and the size of the blood-clot. Pontine hæmorrhage is uniformly fatal, generally within a few hours, and so is that into the ventricles. The gravest indications are deepening coma, rising temperature two days after the hæmorrhage, and Cheyne-Stokes respiration. If the temperature falls after the third day and consciousness returns a favourable issue may result. Albuminuria and glycosuria are of evil omen. A persistent firm pulse and the occurrence of acute bedsore are also fatal symptoms. Sometimes the tenth or eleventh day may be reached after a cerebral hæmorrhage, but if the patient is restless and irritable a fatal result will follow, although the clot may not be large.

Chorea.—Cases of this disease admit of a generally favourable prognosis at any age below puberty. At that period and after the outlook is much more grave. Chorea insaniens is a very dangerous form. The average duration of the disease is ten weeks and three days.

Epilepsy.—The truth of Hippocrates' aphorism respecting this malady is still attested: "Epilepsy supervening before puberty may undergo a change, those cases arising after the age of twenty-five for the most part terminate in death."[28] He also considered the prognosis to be bad in congenital epilepsy and when it occurred in an adult without any previous cause. Death in a fit is rare, unless a large cerebral hæmorrhage occurs in the attack or hæmophilia coexists. The prognosis is better in the male sex. Most cases arising in the third or fourth decade of life for the first time, with recurrence, are due to cerebral syphilis, and therefore admit of more favourable prognosis. Frequency of attacks and mental disturbance are always of grave import. Attacks of *petit mal* are to be regarded as serious, since they commonly eventuate in convulsive ones. Status epilepticus not infrequently leads to death from exhaustion. We may fairly affirm that this serious malady in most of its variations is now amenable to treatment, diathetic and medicinal, in a degree that would have been cheering to Hippocrates and Galen, not to mention physicians of more recent date, who practised, it may be, up to twenty-five years ago. Respecting insanity in its several aspects, we may declare that the outlook is always serious when improvement fails to occur within twelve months from the first onset of symptoms.

PULSE AND TONGUE.

Physicians have long been wont to gauge the degree of vital and residual power in the sick by reference to the pulse, and in few departments of clinical work has more effectual knowledge been obtained than in this study, accurate physiological research having made plain and placed on a scientific basis the several conditions so long known to observant physicians, thus aiding materially no less in treatment than in prognosis. I do not, however, propose to discuss this subject further on the present occasion. The conditions of the tongue have only more recently attracted scientific attention in this direction, and for a careful study of these we are indebted as physicians to Dr. Dickinson, who in his Lumleian Lectures of 1888 contributed most ably to this subject.[29] To use his words, we may affirm that "the tongue, indeed, has a whole book of prognostics

[27] Transactions of the Clinical Society, vol. ii., p. 170, 1869.

[28] Aph. 7, Section vii.

[29] The Tongue as an Indication in Disease, Longmans. 1888.

written upon its surface." The older physicians paid great attention to the condition of the tongue in diseases and probably noted all that was observable to the eye. Modern study, however, places a different interpretation upon the nature and significance of many of the phenomena. Hippocrates was not behind in such observation as might be expected. We are here and now chiefly concerned with such conditions as enable us to form a favourable or unfavourable prognosis, and of these we have to take note more particularly of the dry tongue. This has always been regarded as grave. Dickinson found that patients, examined without selection, who had dry tongues of whatever origin exhibited a mortality of 50 per cent.[30] This indication mainly relates to prostration. "The kinds of diseases which it accompanies are chronic more than acute; if febrile, usually continued." Pyrexia and deficient secretion from the salivary and the buccal glands are the chief factors. "The tongue is found dry, glazed, and smooth in the later stages of tuberculosis and in exhaustion from continued suppuration; dry and rough at the end of cases of cerebral disease, hepatic cirrhosis, cancer, pyæmia, and severe pneumonia. Amongst the conditions of the tongue which favour a satisfactory prognosis in any case are to be noted recovery of moisture and a cleaning of fur from the tip and edges towards the dorsum."

CRISIS.

It might be expected that in treating of prognostics I should allude to the doctrine of crises and critical days. We have heard little respecting these in our time—little, certainly, that is dogmatic. But I venture to think that the best modern clinical research has done nothing to discredit the greater part of the doctrines of Hippocrates, Galen, and their followers in this respect. The accurate study of acute inflammation, of pneumonia, of the varieties of acute pleurisy, of the continued fevers, the exanthemata, and acute catarrhal processes have much confirmed the old doctrines and illustrated the true nature of crises and the causes on which they depend. Were we to take the pains I believe we might go further and find the grounds for the old belief in "indicatory" and "judicatory" days and for dependence on the "septenaries."[31] As Dr. Munk has pointed out, it may be that we now by medicinal interference prevent the occurrence of various symptoms in acute diseases which in former days were allowed to manifest themselves as crises and præcrises. Let us hope, if this be so, that we are at least doing no harm to our patients. This is not perhaps a barren fear. To take the case of pyrexia, may it not be that we do ill by seeking to suppress what is probably a very salutary process and way out of the disease by administering in a routine fashion, and often inordinately, antipyretic drugs? Some remarks of Dr. Munk in the oration I have alluded to so well apply at the present day that I venture to quote them here, expressing at the same time my entire agreement with them and my regret that they should still be applicable in the expiring years of this century. "In the unhealthy state of the public mind on all subjects relating to medicine which characterise the present times (1858), where septicism of all that is scientific, unostentatious, and orthodox in physic is associated with an astounding credulity towards anything absurd, unintelligible, presumptious, and heterodox, there is nothing so well calculated to take and hold possession of the public mind, nothing which would more certainly conciliate the good opinion and confidence of the public towards legitimate medicine and its professors than that minute, systematic, and accurate prognosis which was practised by our forefathers in physic."

CONCLUSION.

I have endeavoured, though, I fear, somewhat tediously and very incompletely, to bring into concrete form some of our present knowledge of prognostics in relation to various diseases. I have preferred thus to try to make this address as practical as I could, and I venture to hope that in departing somewhat from the lines usually followed by my predecessors I may not have failed to enlist the interest of my audience. We, as bedside physicians, exist to small purpose in the body politic and our art as exercised upon the ailments and sufferings of humanity is of no avail if it be not in the highest and best sense practical. We cannot afford in this large Association to be merely professionally political, or even academic, if we are to fulfil our greatest purposes. We meet to aid one another in the performance of our daily duties and to have our conceptions of our art brightened and made wider. We are now in peril, as I have said, from too narrow and limited conceptions of diseases by reason of the inevitable differentiation and the specialism which is so rife amongst us; and these modern phrases require to be chastened by a review of all medicine from a higher and more comprehensive standpoint. The most experienced practitioners will agree with me when I say that it is not always an easy matter to certify how long a patient has to live even in the presence of well-recognised symptoms of impending death. The end comes sometimes more rapidly and suddenly than was anticipated. Again, life is sometimes protracted in a remarkable manner and our forecasts are proved to be fallacious. There is, however, no mistaking the speedy fatal issue in any case where the condition known as "the agony" once sets in, with the *facies Hippocratica* and tracheal râles, the sensorium being dull, the nose and extremities becoming cold, and cold sweats bathe the body.

In pulmonary phthisis and cancer of the stomach we meet with the most protracted fatal issues. In poisoning by strychnine and in rapidly spreading peritonitis, as after rupture of gastric ulcer, the unwary may be misled as to the certain fatal issue (unless modern surgery is promptly invoked) by the perfect mental clearness of the patients up to the last moments. Relatives and friends of the sick often ask our opinion and demand a prognosis, and they look to us to give them dependable information in the most decided and dogmatic form. No part of our duty demands more skill and tact than to afford a proper reply to these questions. While we must always be as hopeful and encouraging as is permissible we must not shirk the unpleasant truth which has so often to be declared. An old and wise physician, Dr. George Fordyce, was wont to guard and express himself under these circumstances by the use of a cautious "if." *If* this or that should not occur, he said, we may hope for improvement, but *if* such and such a symptom supervened we might not look on hopefully any longer.[32] I commend to you the use of this cautious "if." But while it is very damaging to our character to be an alarmist, or to prognosticate evil things which never happen, it is more serious by far to be an optimist and to prove that we have not adequately gauged the true measure of gravity in any case we have to do with. The physician who brings most healing power to the bedside with him is generally one who is bright and encouraging and inspired always with good hope. The most accurate prognosis comes from him who has with care and a large chastened experience first established a correct diagnosis, and has also learnt to employ remedial measures with judgment and good sense. An eminent French physician once said, "No one can frame a prognosis for a diabetic patient until he has been fifteen years in practice." If this be true, as I venture to think it is, we may apply the somewhat trite assertion to many other morbid states than that of which glycosuria is a symptom; and the significance of the whole matter is this, that we must look to the seniors of our profession to aid us in the matter of prescience or skilled prognosis. The younger men may often afford light in the matter of modern diagnostic methods to their seniors, but the experience and knowledge of the latter is needed not seldom in forecasting the issue of a case. Of these, the most shrewd may be, perhaps, the least confident, remembering that no *præsagia mortis* are invariably to be relied upon.

Gentlemen, I have done. Let me venture to hope that I have not unduly taxed your patience or your good nature in laying before you what to many may appear rather trivial and possibly sufficiently well-known matters. I will close this address in words of Hippocrates which commend to us all the study of prognosis. "It appears to me a most excellent thing for the physician to cultivate prognosis, for by foreseeing and foretelling in the presence of the sick the present, the past, and the future, and explaining the omissions which patients may have been guilty of, he will be the more readily believed to be acquainted with the circumstances of the sick, so that men will have confidence to entrust themselves to such a physician, and he will manage the case best who has foreseen what is to happen from the present state of matters."[33]

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[30] Dickinson, op. cit.

[31] The seventh, fourteenth, and twentieth days were considered the most important of these.

[32] Dr. Fordyce was physician to St. Thomas's Hospital, 1770.

[33] προρρητικὸν ά.

Address in Surgery.

Delivered at the Annual Meeting of the British Medical Association at Carlisle, July, 1896,

BY RODERICK MACLAREN, M.D. EDIN.,
SENIOR SURGEON TO THE CUMBERLAND INFIRMARY, CARLISLE.

ON PREVENTIVE SURGERY.

GENTLEMEN,—I am deeply sensible of the honour conferred on me in being asked to address you to-day, an honour which is accentuated and enhanced by the fact that the request is at the initiative of my friends of the Border Counties Branch of the Association. When I look back on the distinguished men who have in past times addressed you in surgery it is with satisfaction tempered by fear that I have agreed to attempt the fulfilling of this office.

The subject on which I propose to address you is Preventive Surgery—that is to say, a surgery in which treatment or operation is entered upon or undertaken for some risk or sequence which we expect to result from an existing condition, and not on account of what is actually present at the time. We may fairly claim for preventive surgery that it is a product of modern times, the outcome of recent advances in the knowledge of the intimate causes of disease, of the introduction of anæsthetics, and of perfected methods of wound treatment. It has been claimed for the ancient rite of circumcision that it had a hygienic purpose, that it was primarily designed to allow of absolute cleanliness and to remove a frequent cause of disease, and that it subsequently acquired the position of a religious observance; but an examination of the question by Herbert Spencer has shown that this view is untenable. He gives good reasons for asserting that circumcision originated as a mark of subjugation to a conqueror, that it subsequently acquired the significance of submission to a god, and presently of initiation into, and membership of, a tribe. He points out that mutilation has been a frequent mark of subjugation, that circumcision has been practised by peoples neither distinguished for enlightenment nor cleanliness and living in parts of the world very distant from each other and in which the conditions of life vary much (in Tahiti, in Torga, in Madagascar, in New Caledonia and Fiji, among African peoples from Abyssinia to Kaffirland, in America among some Mexican tribes and in Yucatan, in Australia, and, as we all know, among the Jews). I may add also that the peoples who practise it as a religious rite do not anywhere allege that it serves the purpose of preventing disease. Another old operation might be regarded as an exception—the radical cure of hernia, which has been attempted in a variety of ways at different times and in various countries; but it was never established as a justifiable operation till within recent years, so that at the best we can only regard it as an evidence of what was in the minds of thinking surgeons and as a mere foreshadowing of what is now an established practice.

THE OLD DICTA AS TO OPERATIONS OF EXPEDIENCY.

So recent is preventive operation that thirty years ago the recognised teaching was "Beware of operations of convenience." It was alleged by men of great capacity and intellect that such were attended by a greater mortality than operations of necessity. Nature was endowed by them with the power of accommodating itself to the inevitable, but of resisting mere expediency. Of course, these ideas were wrong and probably arose because death or ill-doing was most striking when occurring in instances where operation was not a necessity. A patient with some disease or malformation which did not much hamper his daily life, or which was only going to do so at some future time, was operated on and died. The mind of the surgeon would be certainly more impressed by the horror of such a result than if the same occurred for some disabling or dangerous disease; but really the avoidance of preventive operation was a wise and logical outcome of the then general state of surgery. The action was right, but the reasoning wrong. Before the days of anæsthetics the possibilities of such operations were limited in the extreme. They nearly all require prolonged dissections, such as pass the limits of human endurance; they need, moreover, an absolutely passive patient. Till general anæsthesia as a practice for all operations gave us these, surgeons could not have induced their patients either to remain passive during the infliction of the inevitable pain or even to endure it at all.

THE CONDITIONS WHICH RENDER PREVENTIVE OPERATIONS JUSTIFIABLE.

I look on preventive surgery as the highest development of our special occupation. Consider for a moment what it necessitates; such a knowledge of the state or disease as enables us to predict its course at some probably distant time. We must be able to say to a patient, If you allow what now exists to continue you will experience certain definite consequences, or you run risks which can be expressed in figures. Then we must be such masters of our pathology that we foresee all the states we may encounter; we must be fit to form an estimate of the local condition and must have present in our minds all the possible deviations from it. Our technique ought to be perfect, for though mistakes and oversights may sometimes be excusable in operations of emergency, in preventive operations they should have no place. In addition to perfect knowledge and highly organised and developed skill, there is need in a pre-eminent degree for what has been named surgical instinct, but which is truly nothing but the capacity for taking a rapid and exhaustive mental survey of the patient and his surroundings, summing him up inside and out and judging of his capacity for standing shock and for repair. A preventive operation should be devoid of risk to life both at the time and during the healing stage. It seems to me that this work is only justifiable under this limitation. I do not think that we ought to suggest to anyone that for the sake of a future good he should undergo what may kill him at once. In proposing such an operation we ought to be prepared to say that it is devoid of risk—that is, of course, of risk additional to that of the original disease. If we understand and perform our work well we are at the present day in a position to do this. We know what we shall interfere with, that not any organ essential to life will be totally disabled. Where cavities are opened we know what is necessary to close them securely and safely. And our present methods enable us (with just such possibility of failure as is inseparable from human frailty and human error) to ensure primary healing of our wounds and the absence of those local and general infective diseases which were in times past the curse of surgery. Not only should a preventive operation be safe, but it should not involve much suffering. It has been said that no one makes a good physician who has not himself been ill; till he has experienced in his own person the varying phases of anxiety, of depression, of hope, and it may be of fear, in his patient; nor can he estimate the value attached to his every word, action, and expression till he has gone through the process himself. Believe me, there is a horror in most minds, an anxiety which I think we can hardly justly appreciate till it comes as a personal experience, which we are apt to under-estimate. Much of this is due to a dread of the unknown quantity pain. If preventive surgery is to take its true position we should recognise this, and by acting so that pain is absent, or nearly so, remove from the minds of men this natural objection to have their bodies interfered with. Of course, we no longer inflict pain during any operation. This has been a solved question for fifty years; and in this, the jubilee year of anæsthesia, I have thought it not inappropriate to call your attention to a development of surgery which hangs entirely on its use. We still, however, have longings after the perfect anæsthetic, which should be as portable, manageable, and pleasant to take as chloroform, as capable of long use as either chloroform or ether, and yet as safe and free from after-effects as nitrous oxide. For minimising after-pain much rests with the individual surgeon. If he avoids by direction of incisions all unnecessary injury to nerves, if he makes all his manipulations as gently as possible, if he leaves his wound free from tension either by tight sutures or contained blood-clot, if he secures the most restful position, and above all things if he ensures for his wounds a normal healing, he may do extensive operations with exceedingly little after-pain. Indeed, under those conditions the patient's usual answer to the question, "Have you any pain?" is, "No; I just feel the place a little sore." It should so be.

DISEASES OF THE THROAT AND NASO-PHARYNX.

A large amount of preventive operative surgery has a causal connexion with the throat and naso-pharynx; disease

conditions, to which we give different names, branch in various directions from this locality as a common centre. They are conditioned by the various tissues and localities they subsequently affect by their rate of spread and by their surroundings, and they give rise to appearances entirely different and which often seem to be separate diseases till we go back to their essential nature and cause. Under ordinary circumstances the inspired air entering the body is free from organisms by the time it reaches the back of the nose; but when highly charged with impurities this is altered, and as the air there turns at an angle and meets with a moist surface organisms and their spores are deposited. There are crypts, gland openings, and channels in which they find a home and follow out their life-history. If their nature be infective only a delicate and easily injured epithelium separates them from lymphatics and veins ready to carry them to new fields. Even if this region remains their home they may cause tissue growth in the form of enlarged tonsils and adenoids which may mechanically obstruct the entrance of air. The inflammatory swelling set up by organisms may hinder the exit of natural secretions from cavities, as, for instance, from the Eustachian tubes, giving rise to their distension with fluid and admirably fitting them to promote the further growth of micro-organisms. These find abundant nourishment and a suitable temperature, and they start a chain of changes which have often grave consequences. With the preventive surgery of this region there is no small risk of overlooking the original cause. Hypertrophied tonsils, adenoid growths, suppurating ears and glands are all so obvious that further investigation is apt to stop, leaving out of consideration the cause behind, though it should be removed as well as the visible lesions attended to. Enlarged tonsils and adenoid growths produce some slight local discomfort, but the chief evil which they do is in checking growth and nutrition. Children who are affected with them are generally small for their age, anæmic, and ill-developed; their chests are contracted and drawn in along the line of the rib cartilages. If you tell them to take a full breath the interspaces and the supracostal and infracostal hollows may retract. There is an impediment to the free entrance of air to the lungs. Frequently the children stoop from bending of the spine. It is often very striking to see the growth and development which follow the removal of large tonsils and the scraping away of adenoids. The guillotine operation for tonsils is not as a rule satisfactory. It is wanting in precision and is very given to miss the lower portion of the tonsil, which may be much hypertrophied just out of sight. It fails, moreover, in those cases in which the enlarged tonsil is contained and hidden between the pillars of the fauces. The imperfect results which it so often gives have brought the operation into a certain degree of undeserved discredit from the frequency with which the portion left increases again. It is much more satisfactory to give the patient a deep anæsthetic and deliberately cut out—or, still better, with a blunt director tease out—the whole structure, doing an operation of precision. The bleeding is not formidable, and if a broad-bladed vulsellum be used, which will not readily tear through the friable tissue, the difficulties are not great. The guillotine operation should be reserved for cases in which the tonsil is attached by a distinct neck. Adenoid growths in the naso-pharynx produce similar remote effects to those of enlarged tonsils; their nature is presumably the same, and most commonly they exist together. So, generally speaking, the removal of tonsils is not a complete operation without a scraping away of all growths. Few operations give so good results with so little risk or trouble.

EAR DISEASE.

In the throat we have the common starting-point of another set of conditions in which preventive surgery has given assured and brilliant results. From diseased and swollen mucous membrane, from secretions bottled up and cultivating organisms powerful for evil, a train of sequences is set up which may ultimately result in brain abscess or purulent meningitis. The middle ear may be converted by the blocking of the Eustachian tube into a full cavity with complicated recesses and chambers. These become the dwellings of many organisms, which set up suppuration and destruction of tissue, the ear drum gives way and opens a new channel of contamination, or it may be that an independent opening to the surface is formed behind the ear and pus escapes there. The acute cases are rarely attended by intracranial abscess and if carefully treated often get rapidly well. The surrounding tissues are healthy and resistive; but many lapse into a chronic state, and then comes the great liability to intracranial disease, either from direct extension to within the skull or from conduction through the veins and sinuses. I do not assert that every case of suppurating ear should be made the subject of operation, for many are amenable to treatment and are permanently cured. With many, however, treatment fails, and this I do say, that everybody who has a chronic suppurating ear goes about in deadly peril. I am certain that it should be a rule to operate on every discharging ear which does not get right by treatment. The mastoid cavities should be laid open and converted into hollow cones, all diseased bone should be removed, all unwholesome structures scraped away, and everything made suitable for speedy healing, not for the sake of the ear as an organ, not even for the sole purpose of removing the local trouble, but for the avoidance of the grave secondary risks which are always present. It has been alleged as a reason against operating that cure does not follow in a considerable proportion of cases, that suppuration does not cease; but to my mind this points to an imperfection of our methods and is not an objection to operation. The vital proclivities of the tissues of, and about, the ear do not differ from those of the rest of the body, and they will heal if we make everything fit for them to do so.

CERVICAL ADENITIS.

From a diseased throat morbid influences may be conveyed in other directions than to the ear. The most common of these is to the cervical glands. In most instances, if the diseased throat is treated early and well, the inflamed gland subsides, but very often the early stages are overlooked, and the suppurating or tuberculous glands become themselves a source of further remote disease and require treatment for the avoidance of this. At no stage, however, should the surgeon fail to look for the original seat of trouble. Given an enlarged neck gland, the ulcerated throat or mouth, the suppurating ear, the diseased tooth, or the eczema of the scalp should be looked for and treated. If diseased glands be left alone they commonly cause years of ill-health, with constant risk of consecutive development of disease elsewhere. It has, therefore, been the practice of recent years to get them away as soon as it became apparent that the enlargement was more than a mere passing state. This removes the first line where infection has halted, with the result that in many instances it ends the disease and allows the patient to pick up general health. In speaking of glands I am classing together those that are tuberculous with those that are suppurating for the reason that both call for the same treatment. But the results are much better with the latter than with the former. Even after a free and careful removal a considerable proportion of tuberculous glands are followed by further developments of tubercle. On the other hand, if we treat suppurating glands early, when they can be removed intact, primary union may be counted on with small liability to return. Even when the glands have been long enlarged, and have contracted adhesions to all the structures around them, when they are friable and break down during removal, and when the wound is a deep and complicated one, with thorough removal of diseased tissue and free douching before closing the wound primary union still occurs in a large proportion. If it does not, however, tardy healing, repeated gland abscesses, and operations are apt to make slow the progress of the case to final cure. But the result on an average is better than that of the unchecked course of the original disease. The operations are usually troublesome, much more so than many with high-sounding titles and described as capital. The glands are placed deep and wide among important structures. When the conspicuous gland or glands are removed others previously undetectable come into view, till often the dissection leads far from the original incision. The best course is to face these difficulties and get the glands out whole if possible; this I find much better than incising and emptying the capsule. With all deep glands it is a good plan to tie the attachment before dividing it, thus saving a tedious search for some bleeding vessel with its mouth buried in cellular tissue. I have had the opportunity of watching for years the after-history of many of these cases, for suppurating glands are common here. The results on the whole are very satisfactory; a great many get well at once. No other gland takes on diseased action and the cure is permanent. Another set of cases make slow recoveries, but yet get quite well in the course of a few months. A third small class get fresh involvement of glands long after

the original operation; they require repeated operations, but eventually end in cure if their health conditions are fairly satisfactory. The story is somewhat different with tuberculous glands. The amount of success is much less. A few even seem to get harm from operation, general tuberculosis occurring, presumably from infection during operation; others, again, develop it generally or locally elsewhere at some distant period, as they might have done without interference; but in spite of these mischances the operation has a sufficient success to justify its practice. In a large matter like this, involving cure or death, health or invalidism, the appearance of a scar is but a small matter; but still it is worth noting that a well-placed linear cicatrix is after a few months almost invisible, contrasting favourably with the puckered and depressed scars resulting from natural cure and associated in the public mind with scrofula and constitutional taint.

RADICAL CURE OF HERNIA.

Hernia is so manifest, so much under the sufferer's notice, so great an inconvenience in the ordinary affairs of life, and when unreduced involves so great risks from strangulation and small injuries, that we need not be surprised to find, as I have just mentioned, that its permanent cure was one of the earliest efforts of preventive operative surgery. From the time of Celsus, if not further back, many and diverse procedures have been employed. For long the testicle and hernial sac were both removed. The wound thus left was variously treated; it was seared with the actual cautery or with caustic agents. Many kinds of pads and sutures were used with the purpose of getting a firm cicatrix. The skin and sac have been invaginated without incision and sutured or clamped so as to produce occlusive adhesion. These operations and others of the same kind have been the sources of alternate waves of enthusiasm and despondence—enthusiasm by the inventor of some new operation; despondence by his imitators. There have been periods of somewhat active disagreement in regard to priority or about non-essential details, and finally a common agreement as to principles, and a recognition of considerable latitude as possible within the limits of these. I believe I am expressing the view generally held by surgeons when I say that so long as a hernia can be steadily kept up by a truss which does not much incommode or prevent the patient from following his occupation, there is no necessity for operative interference. But if trusses fail for any reason to keep up the gut, if the truss is painful to wear and excites, as sometimes happens, repeated inflammations of the sac, or if the patient's occupation requires exceptional activity, the time has come to operate. By the operations of the present day, whether done as deliberate procedures for the purpose, or as the winding up, of an operation for strangulation, we are able to leave a state of parts differing but little from the normal. The operation as now performed is an almost absolutely safe one, and some surgeons have sufficient confidence in their results to advise the non-resumption of truss wearing; but the more general idea is that a light external support is desirable, and that we do well if we enable a man to keep his hernia up with the small inconvenience of a well-fitting truss. We have changed his condition from one of hourly risk, in which an accidental knock from the corner of a table or a child's head (I am speaking of actual instances) may be followed by death, to one of normal safety. I believe that perfect results can be got from almost all the present so-called operations. Whatever secures good closure of the rings effects the cure. The peritoneum is of hardly any value as aiding the integrity of the abdominal wall. If left in the ring it is undoubtedly a source of weakness by keeping open a channel and preventing union of the stronger structures, but in itself it is a mere slack distensile membrane with little resistant capacity. It is on the union of the oblique aponeurotic and tendinous structures that we rely for real strength, and the more thoroughly we get these together and the more they form a uniform sheet the less likely is the rupture to recur. I take an inguinal hernia as a type of all varieties. The plan of dissecting out the sac, cutting it across at the neck, separating the peritoneum for an inch or so round the internal ring, twisting the neck into a cord, bringing it through one or other pillar of the ring by an artificial opening just large enough to let it pass, suturing it there, then stitching together the pillars of the ring behind the cord with two or three silk sutures, and closing it as thoroughly as possible, gives a result which leaves nothing to be desired. The same may be said of other herniæ, local peculiarities, however, necessitating slight modifications.

ENLARGED PROSTATE.

Among the miseries which may make long life a burden to its possessor there are none greater than those resulting from an enlarged prostate. The constant pain, the unrest, the ever-present desire to pass urine, the inability to do this, the sleep-disturbed nights, and the frequent need for catheterism cause a concentration of wretchedness such as makes strong, clear-minded, sensible men long for death. You all know the average story: first a little delay in beginning, and some slowness in, micturition, with a sense of imperfect emptying of the bladder, some day almost a block, but this overcome by time and straining, then perhaps a dribbling stage, when the overful bladder leaks, but does not empty. Next, one day an absolute block relieved only by the catheter, then a spell of catheterism three or four times a day, this followed in very many cases by a period of restored power of emptying the bladder, but also almost inevitably by other attacks of retention. The urine, at first normal and clear, presently becomes turbid, alkaline, and full of ropy pus; coincidently with this the bladder walls inflame and the most pitiful stage follows. The ureters become largely dilated and mix with the urine a specially foul irritating purulent secretion. Most of these cases die from this septic condition extending up the ureters to the kidneys. They die from septic and uræmic poisoning. One man in every three above sixty years of age has an enlarged prostate, and of these one in ten suffers more or less inconvenience from it.

It is not, however, every case of enlarged prostate with retention which follows this course. The urine may remain clear, and inconvenience be limited to the trouble of passing an instrument. Most surgeons have seen instances in which this has gone on indefinitely. These cases are, however, a minority. It is, therefore, our business to endeavour to forecast the progress of each case of prostatic retention when it first comes to us. It is not good surgery to wait for a septic bladder before removing an obstruction. We must rather consider whether or not sepsis will occur. If we have a thin, hard man, who has led an active, healthful life, whose catheter goes in easily and smoothly, who has a clean home, and who is either sufficiently intelligent to keep his catheter and the orifice of his urethra absolutely clean, or has someone who can do this, we have every condition which justifies being content with catheter life. Ease of introduction of an instrument has much to do with the absence of sepsis, for difficulty is followed by bleeding. Not only may blood in the urethra form a canal for organisms to reach the bladder, but bleeding implies an irritated urethra containing an excessive amount of secretion which readily goes wrong. Even the most favourable cases should be watched or cautioned, and the first appearance detected, for not later than this is the time to operate successfully. When the urine has become very putrid, when the bladder is acutely inflamed, when the ureters are infected, operation is bound to be very fatal, but not so when done in a more normal condition. If we are sure from the sort of patient we are dealing with and from his surroundings that he will follow the unfavourable course it is much better to advise early operation than to wait for a desperate state of matters, and infinitely better than to allow the case to run its unchecked course. We have a certain latitude of choice in operations. Suprapubic cystotomy allows us to reach the obstruction, feel or see it, and then remove it. Then suprapubic cystotomy may be combined with perineal removal of portions of the prostate or with perineal drainage, and finally we have castration.

Suprapubic cystotomy with removal of enlarged prostate, whether central or lateral, and the establishment of a clean low-level canal into the urethra, is at present the operation to be first considered, though every surgeon should be prepared to deviate from it should local circumstances show that this would be of advantage. The resulting mortality is small, perhaps not more than 1 in 10, and it must be kept in mind that the condition itself is a very fatal one. The mechanical result is that in at least 40 per cent. the bladder recovers its function, and in the remainder suprapubic drainage establishes a state of greatly increased comfort. Within the last three years a new operation has been introduced for enlarged prostate. Relying on the observed fact that atrophy of the organ follows removal of the testes surgeons have performed castration. The operation is too new and the cases too few to allow of any decided opinion of its merits; the results,

however, have been sufficiently good to justify its further employment. Cases in which the urine was offensive and loaded with mucus and requiring removal at frequent intervals are reported as, after operation, passing a healthy urine spontaneously and as having no detectable enlargement of the prostate. In other cases, though complete cure has not followed, a large improvement has. From one or other method we have the possibility of preventing one of the most prominent terrors of old age.

PERITONITIS AND APPENDICITIS.

Twenty or thirty years ago a physician or surgeon attending a patient with an acute condition of distended tympanitic and painful abdomen, a quick and small pulse, and drawn up legs thought that he had fulfilled the whole duty of man when he had diagnosed peritonitis and excluded perforation of the stomach and obstruction. Who is content with such a diagnosis now? It has gradually become apparent to our minds that peritonitis has almost always its cause in some other lesion and that our investigation is not complete till we have localised that cause. We know also that the origin is very often indeed situated in the appendix vermiformis, that this tube is subject to several morbid states; it may be strictured, and the part distant from the bowel may be distended with septic contents; it may ulcerate through; it may be the seat of tuberculous disease; foreign bodies may lie in it or concretions form; the whole thing may become gangrenous. As consequences of these we may have at one end of the scale a mere local disturbance passing away after a few days' discomfort or at the other a general rapid peritonitis followed by death. Between these extremes we find many degrees of severity of attack. Thus, if a slow perforation occurs we have an abscess in the peritoneum, but shut off from the general cavity by adhesions. We probably hardly yet know the whole pathology of the appendix, but we know enough to form a good clinical idea in most cases of the essential state of matters. A little consideration will show that many of the above do not come within the scope of my address. A general peritonitis following perforation or a local abscess round the appendix demands immediate surgical interference; the stage is past when prevention can come in. The class of case which falls within the domain of preventive surgery is that in which the appendix is not perforated, but in which it is subject to repeated attacks of distension, in which it inflames from retained concretions; indeed, when from any cause it is the subject of one or more inflammatory attacks of a severity short of immediate danger to life. Three views of surgical duty prevail. Some surgeons hold that the appendix should never be removed, that the probability of a putrid infection of the peritoneum during the necessary manipulations makes it an operation of unjustifiable risk, and that the prospect of natural cure is a more hopeful outlook. I believe this view is held by an ever-narrowing circle.

Another opinion strongly held both here and in America by men whose surgical work entitles their views to the highest possible respect is that every appendix which has given rise to morbid symptoms should be cut down on and removed when in a quiescent state. The third view is that only after a repeated appendicitis and the failure of careful dieting does there exist the necessity for a preventive operation. The following arguments are adduced in favour of this view. The great majority of attacks are not repeated, after one all clears up and no further disturbance occurs. Most instances of perforation are first attacks—an evidence that one seizure does not increase the probability of perforation in the case of recurrence, and, lastly, that a milk and farinaceous diet and mild aperients are often successful in preventing return. I think this last view may be looked on as that most generally accepted by English surgeons, and consequently that the time for preventive operation comes after a relapse, not after a first attack. When the operation is done during the quiescent stage, and with every possible care and precaution which human ingenuity can devise and human knowledge direct, it is devoid of risk and absolutely effective, for the source of trouble is entirely taken away.

CARCINOMA.

Another disease holds out the prospect of a wide field for the extension of the preventive principle—namely, carcinoma. It is as yet an almost undeveloped region except in the face, but the results there give us an idea of what may be done elsewhere in the future. Carcinoma of the lip is soon seen; it is disfiguring and a persistent annoyance, consequently it is brought early to the surgeon and is removed generally when young and small; distant infection is consequently rare and recurrence in other localities infrequent. We have much to learn about the nature of carcinoma. In the absence of knowledge we may use our reasoning faculties and make some effort to infer the unknown from the known. In cancer of the lip and in Paget's disease of the nipple we have two instances in which the life-history is well made out. Each commences by a small skin irritation; one by a fissure or small ulcer of the lip, the other by what is apparently an eczema, a chronic inflammation of the nipple. Both are of slow local growth, both are long in infecting glands, but both inevitably and unvaryingly do so if permitted to remain. When we enumerate the other localities in which carcinoma occurs we find that they also are all subject to local surface irritation or in close connexion with places which are. Take the tongue; we know that it is very frequently the seat of simple ulcers from diseased teeth, injuries by food or smoking. Then how often is the stomach the seat of simple ulcer. The place where epithelioma low down in the bowel most usually occurs is just where hard, irritating fæces lodge in the region of the sigmoid flexure. The cervix uteri is throughout life, but specially during the child-bearing period, the frequent seat of local irritation. The breast may seem an exception, but a slight eczema of the nipple is more common than is generally believed; it is somewhat difficult to see, it causes no trouble, and is easily overlooked. The only signs may be a slight desquamation of the nipple end and a little redness round the openings of the milk ducts. Since I have given attention to this it has surprised me to find how many nipples are thus affected in proportion to the number which are perfectly healthy. We may co-relate these facts with the other fact, that cancer may be for long a latent condition. For instance, I have seen a carcinomatous tumour develop in the direct lymphatic chain of glands from the lip thirteen years after the removal of an epithelioma from it. I have seen it return in cicatrices five and eleven years after the removal of the primary disease; and these are not isolated facts, but a frequent experience. As cases of this kind are those in which the life-history is best observed we are warranted in the deduction that some such life-story is that of all cases. We may expect some point of inception, a latent period, often long, and then development of the disease, either at the point of inception or not far from it, though in direct tissue or channel communication with it. Whether we take the older theory, that some change excites into activity potentialities already existing from a cancerous diathesis, or the newer one, that some organism (a coccidium) is introduced which stirs up those tissues to undue growth, followed by destruction of function, we must equally admit a local change which stimulates a tissue growing normally after its kind to become possessed of demoniac energy.

The bearing of this on surgery is: Let us investigate the small and early changes. If we can find out the antecedent or even the first symptoms of carcinoma we may then know how to prevent it. The recent developments of surgery in cancer have been in the direction of extensive operations and wide-reaching removal of tissue—wider than we dreamed of some years ago; for we are now aware that the visible disease is but a fraction of the total, and if we have far-spreading disease we must have sweeping removal. But I think and hope that there is in the future a preventive surgery founded on fuller knowledge, which will anticipate these great operations by small ones, or, it may be, by such preventive measures as will do for cancer what we are steadily doing for so many other diseases—compress it within narrowing limits.

THE SURGERY OF ACCIDENT.

The preventive principle comes in only to a very limited extent in the surgery of accident. The oldest and best established application of it for the prevention of consecutive disease is in enucleation of an injured eyeball to obviate the risk of sympathetic ophthalmia. Since the early part of this century it has been recognised that certain lesions to one eyeball are frequently followed by an ophthalmitis of the other resulting in absolute blindness. Wounds in the ciliary region, foreign bodies in the eyeball, and such traumatic perforations as are followed by deep-seated inflammation and shrinking involve this risk to the highest degree. The sympathising eye frequently within a few weeks begins to show signs of irritation, of undue sensitiveness to light, and to be the seat of lacrymation and pain. So long at it remains at this stage

removal of the exciting eyeball arrests further advance; but frequently progress is much more insidious. There may be at first no pain, merely a loss of accommodative power, followed in sequence by turbid aqueous, ciliary tenderness, vitreous opacity, detached retina, and permanent loss of sight. Whence the good practice of removing every eyeball so injured that it may likely set up this state in the other. When an eyeball is hopelessly damaged, when it contains any considerable or presumably unclean foreign body, no surgeon hesitates about its removal. But difficult and anxious questions arise with such injuries as only damage but do not destroy sight, and in some instances it is justifiable to watch and wait. A considerably injured eyeball which heals rapidly and well may yet be useful and safe. Ablation and evisceration of the contents of the eyeball are said to be equally certain with removal and to leave better stumps, but the direction of recent investigation does not favour this view. It is very probable that the infection of the sympathising eye is through the communicating lymph spaces of the optic nerves, and consequently the further back the removal of the exciting organ the better is the prospect of prevention. We now recognise this principle in the treatment of depressed fracture of the skull with or without external wound. Our knowledge of the subsequent influence on the brain of irregularities of the vault leads us to operate whenever this injury occurs, and we prevent the cortical irritation or inhibition which we anticipate may follow leaving matters alone. In fractures of the patella many surgeons at once suture the fragments together to prevent fibrous union and a tedious recovery. Divided nerves and tendons when divided by accident are constantly sutured to prevent the loss of power which follows the separation of their ends. When considerable portions of bones, nerves, or tendons have been lost by accident they may be successfully replaced by the implantation of similar structures taken from other human beings or animals. This (the implantation) is perhaps the most highly finished example of applied surgical knowledge and skill, and bears somewhat the same relation to ordinary surgery as the masterpiece of the artist does to the every-day work of the artisan.

THE PREVENTION OF SURGICAL DISEASES

I do not think that we should look upon our work in regard to operative surgery as finished when we have suggested treatment or performed operations. I think rather we ought to be the teachers of the public: that we should show them, as far as our knowledge goes, what are the antecedent evils and errors which produce surgical disease and the methods of preventing such. We have still, and ever shall have, much to learn ourselves. For instance, I strongly believe that at present we do not sufficiently appreciate the harm of slight persistent contamination of the air we breathe. Very often adenoid growth in the pharynx, enlarged tonsils, and consecutive middle-ear disease, which are so common as a clinical sequence, occur in houses which are to all appearance hygienically good. They occur here among the well-off in a larger proportion than among the working classes or the poor, among those occupying modern roomy houses which apparently do not expose their inmates to the breathing of poisoned air more than among those whose circumstances oblige them to live in overcrowded little rooms. But modern houses have their waterclosets, their waste pipes, and their various—often complicated—sanitary appliances inside them, the old and small houses have them outside. I have been in the habit for many years of urging an examination by a skilled inspector of every house in which my attention was called to repeated sore-throats or such disease as I have just mentioned, and in no instance has there been failure to find such fault as allowed air contamination, sometimes direct communication with the main sewer, but more frequently such a state of matters as allowed a portion only of the house system to be for ever breeding and discharging into the air the products of putrefactive change. While it is true preventive surgery to remove adenoids or clean out and drain the recesses of a suppurating ear and prevent a brain abscess, it is unquestionably a higher art, a nobler science, which stops the original cause of all. We alone who see the whole chain of linked causes and effects can show how such evils may be avoided.

As another example in the case of teeth I am certain that it is not sufficiently known how dangerous they are when dead and putrid. Few things exist which are more septic. I have never taken cultures from one; others have and have put on record the various organisms which have been found; but I have often seen the culture experiment in the living body—an experiment convincing enough on the score of activity. I have seen rapid death from general infective disease or putrid thrombosis, with abscesses in the chest or cranium, originating in a dead fang. Extensive neck abscesses are no uncommon result from the same source, and in slower forms with feebler infective powers there may be a continuous slight constitutional poisoning with occasional rises of temperature, presenting a singular resemblance to phthisis. In cases of gastric ulcer I have made a practice for some years of examining the teeth, and in every instance have found decayed teeth or stumps in bad condition or a story of their recent removal. Whether this coincidence amounts to cause and effect I know not. I think, however, it may. It seems a reasonable explanation of the occurrence of ulcer that any accidental abrasion of the epithelial lining of the stomach (and doubtless such are common from food, fish-bones, seeds, &c.) is kept in contact with food or saliva containing septic organisms derived from the mouth. Our daily experience tells us what occurs when a raw surface is in contact with unclean discharges. I might multiply examples, but I have said enough to illustrate in what directions our work may go.

Perhaps the besetting sin of surgery is that it has a narrowing tendency. We must put into our work all our thought and knowledge. Whatsoever our hands find to do that must we do with all our might. Superficiality means failure. The human interest of all we do is intensely absorbing, consequently there is just the risk of looking upon surgery as a thing by itself and of losing our sense of its true place and proportion and confining our thoughts within a groove of little breadth. In preventive surgery we have a tendency in an opposite direction. This tendency not only brings us into immediate contact with what the physician and general practitioner is thinking and doing, making our life and work a portion of the vast organisation for the prolongation of existence, the diminution of suffering, and the prevention of disease, which we are proud to consider as the reason of our existence, but it still further associates us with the great mass of scientific and intellectual advancement which lies outside the limits of any profession of any nation and of any time.

ON THE PATHOLOGY OF ITCHING AND ITS TREATMENT BY LARGE DOSES OF CALCIUM CHLORIDE, WITH ILLUSTRATIVE CASES.

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THE frequency and troublesome nature of this symptom make the subject of pruritus or itching one of considerable importance. It is a subjective symptom which may take varied forms in different individuals and is variously described by them as tingling, smarting, burning, throbbing, creeping (as of insects), and flickering along the course of vessels and nerves, all of which are included when the term pruritus or itching is used in this article, for it is not intended on the present occasion to analyse the causes of these refinements of sensation, or more properly of perception. Pruritus or itching must not be confounded with prurigo, which is pruritus with an eruption which has well defined characters. The use of the adjective "pruriginous" as synonymous with itching is not justifiable and leads to confusion.

The apparatus concerned.—Itching or tingling is a symptom of irritation of the peripheral nerve endings in the skin (of which there are three kinds known) or of the nerve fibrils; and the symptom of itching may be produced with the greatest ease artificially by various mechanical or chemical means applied through the epidermis to the nerve endings as an every-day occurrence. The sensation is then transmitted along an afferent nerve trunk to the brain, where

it becomes a perception. Tingling may sometimes be due to an injury or morbid condition of the nerve trunk itself, such as may be demonstrated on the "funny bone," though pronounced injury or disease of a nerve more usually gives rise to the perception we call pain, excepting just at the onset and conclusion of the nerve lesion.[1] A slight degree of injury giving rise to tingling and itching is also seen when pressure on a nerve trunk causes a limb to "go to sleep." The brain plays solely the part of a receptive organ, the only exceptional instance being the mistranslation of certain sensations—say, of pain or touch in the illusions of some insane patients.

It may be taken, therefore, that itching (pruritus) is *always the expression—i.e., the symptom or evidence of some irritation either of the nerve endings or of the centripetal (sensory) nerve fibrils* passing thence to the brain, or of both. In favour of it being, in some cases at any rate, the nerve ending which is affected rather than the nerve fibres may be mentioned the fact that ulcers which do not itch in the granulation stage commence to do so as soon as the new epidermis begins to be formed over its surface at the edges. The case of reflex pruritus only differs in that the terminations or fibrils of some sensory nerve are irritated other than the one to which the sensation is referred, as when tickling the soles of the feet makes a person itch all over the body. In any case the sensation is referred by the mind—as in patients who have lost their legs by amputation—to the peripheral termination of a sensory nerve. The purpose of the present communication is to determine what pathological process produces this irritation of nerve terminations and fibrils. Thus the inquiry is shifted from the symptom to the pathological process on which it depends.

Etiologically considered, pruritus, or rather the peripheral nerve irritation on which it depends, may be (*a*) *primary*, when no eruption is present or when it only appears secondarily, or (*b*) *secondary*, where the itching accompanies or succeeds some manifest eruption on the skin.

Secondary pruritus.—The pruritus which forms so frequent an accompaniment of most skin disorders belongs to the secondary category. It is characterised:—

1. By the presence in nearly all such cases of an eczema or other local condition on which it depends. The only exceptions are the very rare cases when a disordered secretion or discharge gives rise to pruritus without also producing an eruption. If due to the crawling of parasites they or their characteristic bites are also present.

2. By being proportionate in severity to the degree and acuteness of the skin lesion, short of sloughing, when the sensory apparatus is destroyed. It is also in some degree proportionate to the "sensitiveness" of the individual.

3. By being usually strictly localised to the causal eruption. Nevertheless, so intimately are the different parts of the nervous system connected that occasionally in sensitive persons it may be diffused, as when the persistent tickling of a bald head or the soles of the feet may make a person itch all over.

This secondary pruritus is readily explained by the involvement of the nerve endings and fibrils actually in the skin lesion—congestion or inflammation—or, in the case of parasites, by the irritation of their claws and probosces. This is the simple mechanical explanation. The treatment is equally simple and consists of the removal of the cause. The reason itching is absent in some strumous and syphilitic eruptions is probably either because they are frequently pustular and thus the sensory terminations are destroyed, or because the inflammation is of an indolent and chronic kind. Nerve structures have a wonderful power of adaptability in this respect. Very slowly growing brain tumours may in this way exist for many years without manifesting their presence. In the Hunterian Museum there is a fibroma of slow growth (judging by its histological characters) occupying both the arm and leg centres of the right hemisphere without having produced paralysis or other symptoms during life, the patient having died from double pneumonia without the tumour having ever been suspected. It is not, therefore, surprising that the nerve fibrils should not be irritated by slowly growing, indolent skin lesions; and, on the other hand, that the itching and smarting should be very severe when the morbid process is rapid or acute.

Illustrations of *primary pruritus*—i.e., a condition where itching is the principal and often the only symptom referable to the skin—may be found in jaundice and diabetes; in the pruritus so frequently attacking the aged; in the itching after the hypodermic injection of morphia, in large doses, and other drugs directly into the lymph or blood current;[2] the pruritus which follows unwholesome food, and especially shell-fish or tinned meats—the itching in such circumstances being often attended by an urticarial eruption, though sometimes pruritus alone is present; and, as I believe, an illustration of primary pruritus is also found in the disease variously called prurigo, lichen urticatus, urticaria papulosa, &c., which, in my opinion, are names applied to the same disease varied by circumstances.

Primary itching is characterised by having always a tendency to be more or less general, or, at any rate, diffuse, and liable to shift its position, and by its being unattended by any eruption, excepting in the instances above named (prurigo, &c.), when it always takes the form of papules or wheals or both, and in such cases it generally precedes the eruption in point of time.

The pathological explanation of primary itching is not so easy as that of the secondary variety. The question before us is this, What is the pathological change which produces this irritation of the sensory nerve endings or fibrils? It may, in the first place, be remarked that it is hardly likely to be an actual disease of the sensory nerve endings or fibrils—a neuritis—else we should more frequently get symptoms referable to peripheral neuritis, where none such occur; nor would the symptom of itching vary, and even disappear, from hour to hour as it often does. What, then, is the condition which, while it irritates, does not cause definite disease of these structures? Some say an abnormal dryness of the skin—an anhydrosis—is the cause of the nerve irritation; but although this dryness exists in some cases of pruritus, notably the itching of diabetes, it is very far from being a constant feature. Moreover, it does not follow that because the surface of the skin is dry the nerve endings in the deeper layers of the epidermis are also dry. We know, too, that secretion is regulated by nerve influence, so that diminished secretion is rather an effect than a cause of the nerve irritation, or it may be in some cases that they are both the effects of a common cause. Even in the pruritus of cold weather (pruritus hiemalis), which is pointed to in support of this theory, we find a readier explanation of the nerve irritation in the retention in the blood of products which ought to be eliminated by the skin than in the excessive dryness. Other explanations of primary pruritus have been offered, but they need not be considered now.

On the other hand, if we suppose some blood change as the causal factor of the nerve irritation in primary pruritus we find an explanation quite in keeping with the facts of the many different circumstances under which cases of primary pruritus arise. This view is supported by the following considerations:—

1. The nerve endings and the nerve fibrils are continuously bathed in the lymph, which, by the law of diffusion, corresponds in composition with the blood so far as its soluble and diffusible constituents are concerned.

2. Primary pruritus is nearly always general, or at any rate diffuse, or if at all localised it frequently shifts its position, just as one would expect in a disordered state of the blood. Any attempt at localisation is explained by its selecting those places most rubbed by the clothes or hands, as across the shoulders and on the extensor surfaces; and it must be remembered in this connexion that scratching itself aggravates or may produce nerve irritation without the assistance of any blood change.

3. Like a blood disorder, also, primary pruritus varies from hour to hour and day to day, even disappearing and reappearing; being nearly always worse after meals when the blood is charged with a fresh quantity of, perhaps, imperfectly elaborated material. I have seen several cases where the pruritus was diurnally periodic, starting after the evening meal, which was the heaviest of the day. These are not uncommon in the experience of others, and it seems to me that these, and the violent paroxysms of general pruritus that occur in the course of some diseases, can only be explained by the sudden pouring

[1] As in the case recorded by me in Brain, Oct., 1893, p. 452. Here tingling of the fingers was the first indication of the restored function of the median nerve.

[2] Morphia *habitués* have frequently told me that a fresh dose of the drug always causes an agreeable general itching, but if by accident they introduce the needle into a vein (known by the profuse bleeding which follows) they experience an alarming tingling, throbbing, and itching all over the body.

TABLE OF CASES WHERE ITCHING WAS A PROMINENT SYMPTOM, TREATED BY LARGE DOSES OF CALCIUM CHLORIDE.

Number of case, sex, age, and disease.	Date when first seen.	Symptoms for which the patient applied.	Duration of malady before treatment by calcium chloride.	Possible cause.	Remedies tried before calcium chloride was used.	Dose of calcic chloride, duration, and result of this treatment.
Case 1. A girl aged nineteen years. Pruritus with attacks of urticaria.	March 15th, 1896.	Persistent and intolerable itching of trunk and limbs, worse at night time, preventing sleep, and worse during the attacks of general urticaria, which appeared every few days and lasted for about 48 hours.	3 months persistently.	Constipation all her life, but had never had any skin affection before.	Regulation of diet.	March 13th, 20 grains three times a day; immediate and complete relief. Slight relapse on April 10th, when very costive. Ceased medicine on May 1st, 2½ weeks after all symptoms had disappeared. She came on May 29th to express gratitude.
Case 2. A woman aged forty-five years. Pruritus.	April 21st, 1896.	"Irritation" of the skin worse at night or when she gets warm. The patient stated that no eruption had ever appeared, but she made herself sore by scratching. No eruption was visible on April 21st or later.	3 years in greater or less degree.	Unknown.	Unknown.	April 21st, 20 grains three times a day; in 3 days "able to sleep as I have not done for many months." May 5th, increased to 25 grains three times a day. May 28th, quite relieved; dose gradually reduced, and ceased medicine; relief maintained.
Case 3. A man aged fifty-eight years. Prurigo.	Jan. 31st, 1896.	Very severe general itching; worse at night, preventing sleep. No eruption when first seen, but subsequently a few small scattered papules were discovered.	12 months; almost continuously.	Gouty tophi in ears, though no definite history of acute gout.	Jan. 31st, warm tar baths, tar and mercury ointment, and arsenic internally; no effect. Feb. 28th, ammonium bromide, 15 grains three times a day; no relief.	March 13th, $CaCl_2$ 20 grains three times a day; improvement at once. March 20th, 30 grains three times a day. April 17th, stated "improvement more rapid since medicine stronger." May 22nd, ran out of medicine and irritation returned. Recovery retarded by addiction to beer, but he is free now while taking the remedy.
Case 4. A man aged fifty-seven years. Prurigo.	April 10th, 1896.	Persistent general pruritis with acute exacerbations accompanied by a scanty eruption of small, hard pimples and erythematous mottlings; latterly prevented him sleeping or working.	12 months, off and on.	Unknown. A horsekeeper by occupation. He thought he might have caught something from his horses.	April 10th, warm tar baths and tar and mercury ointment; no improvement.	May 7th, $CaCl_2$ 20 grains three times a day. Improvement at once apparent, but soon after commencing he was without medicine for 3 days and the irritation returned. After all symptoms gone condition gradually reduced and no return.
Case 5. A man aged seventy-eight years. Prurigo.	May 23rd, 1896.	Continuous general itching, preventing sleep and producing a feeling of illness and weakness. Accompanied by a few isolated papules, the apices of which had been scratched off, and a few bruise-like discolourations.	4 months.	(?) Old age.	None.	May 25rd, $CaCl_2$ 20 grains three times a day. May 29th, "itching and eruption very much better"; dose increased to 25 grains. June 5th, "eruption and itching quite gone except a little behind the ears." After this the remedy was gradually reduced and he made a good recovery.
Case 6. A woman aged forty-eight years. Prurigo.	Feb. 28th, 1896.	Severe itching and an eruption she called "nettle-rash," but which when seen consisted of the papules, erythematous mottlings, and nail marks of prurigo. Sometimes the pruritus was very severe, "as though it would drive her mad" and caused her to give up work.	12 months in varying degrees.	Naturally a nervous and emotional temperament; just prior to the appearance of the complaint she suffered great anxiety and over-work owing to illness and death of husband.	Feb. 28th, quinine sulphate 5 grains three times a day for 2½ weeks; no relief.	March 17th, $CaCl_2$ 20 grains three times a day; improvement next day and complete relief at end of the week. March 17th, medicine ran short, and in 24 hours the itching reappeared and the next day the eruption. March 31st, medicine resumed, and again the same immediate relief. April 20th, unavoidably ceased taking medicine quite suddenly; 3 days later the itching and 5 days later the eruption returned with great violence, and was accompanied by considerable depression. May 13th, was able to procure more medicine and again experienced relief. She continued the remedy for 2 weeks, after which it was gradually reduced, and then she remained free.
Case 7. A woman aged forty-six years.	May 8th, 1894.	Persistent irritation of the skin with intercurrent attacks of urticaria lasting from 12 to 24 hours or less, in which the "face and eyes swelled up and red blotches came out on the body and limbs." At first the irritation and eruption only appeared in spring and autumn, but lately she had hardly ever been free from itching and the eruption appeared some time each day, generally after her evening meal. A scanty eruption of small, hard papules was discovered which persisted all the while.	11 years more or less.	Unknown; exposure to the air always aggravated the symptoms.	All kinds of dietary had been tried without success; arsenic in full doses, hot baths, quinine sulphate 5 grains three times a day, creolin lotion, and other remedies had been tried with very partial and doubtful success.	May 1st, 1896, $CaCl_2$ 30 grains three times a day; at first only slight improvement in the irritation and the eruption appeared daily as before. May 15th, 35 grains. May 29th, free from symptoms for 2 weeks, excepting last 2 days when without medicine; relief obtained on resuming remedy. Still under treatment.

into the circulation of a shower of some poisonous or imperfectly elaborated product.

4. Certain dietaries and articles of diet greatly aggravate the itching, notably sugar, malt liquors, and salt meat. Certain unwholesome articles, notably shell fish and tinned meats, will actually determine an attack of pruritus, usually accompanied by, though sometimes without, an urticarial eruption. In some tinned preparations blood poisons (ptomaines) have been isolated, and in all these instances it is difficult to understand how they can produce irritation of the nerve endings unless it be through the blood and lymph.

5. An actual blood change is known to exist in the pruritus which attends jaundice, diabetes, gout, &c., and in all cases of pruritus careful inquiry will almost invariably reveal conditions which are attended by a blood change. For example, in the "nervous pruritus" which Mrs. Garrett Anderson[3] referred to as frequent in women, and in men also who lead sedentary lives, there probably exists the double factor of a sensitive nervous system and an impurity of blood from deficient oxygenation.

6. Certain drugs, notably morphia, injected subcutaneously in large doses into the lymph stream produce a general itching.

7. The typical and usual eruption secondary to pruritus (if there be any eruption) is always of the same kind and consists of papules and urticarial or erythematous blotches.[4] Skin eruptions resembling these two primary elements are known to be respectively produced by various drugs and blood poisons; thus, for example, the typical bromide rash is papular and ptomaine rash is erythematous or urticarial.

8. The drugs which have hitherto been found most efficacious in pruritus are such as have either a sedative effect on the nerves or else a direct action on the blood. To the former belong chloral hydrate, cannabis indica, and gelsemium, which latter has been shown by Horsley to have a direct sedative action on the peripheral sensory nerve endings. To the latter belong carbolic acid, recommended by Hebra; and the various tar products (antipyrin, phenacetin, &c.), which have a double action. These and a carefully regulated diet have hitherto been found most efficacious.

9. It was a line of thought indicated in the foregoing which suggested to me in February last the idea of trying large doses of calcium chloride for pruritus, both primary and secondary, at the same time that I began to use it in urticarial and erythematous affections.[5] Now, it has been shown by Professor Wright of Netley that this drug has a very marked effect on the blood—namely, by increasing its coagulability.[6] The marked success I have met with in thus relieving primary pruritus confirms the idea that the irritated state of the nerve endings and fibrils which exists in this complaint, and which manifests itself by the itching and tingling, is due to some change in the quality and composition of the blood.

This being so the next question is, What is the nature of the blood change in primary pruritus? The answer to this question must, until our methods of research in blood disorders are more perfect, remain more or less a matter of conjecture. It may be excess of uric acid. Dr. Alexander Haig informs me that uricacidæmia is very frequently attended by itching, and that when this substance is eliminated from the blood the pruritus and other subjective symptoms disappear. Another fact in favour of this view is the frequency with which "gouty" subjects are affected by pruritus. And, again, the beneficial effect which omitting meat from the dietary often has in the relief of itching is another point tending in the same direction.

The change may be an increased acidity—an idea which is favoured by the harmful effect sometimes produced by acid fruits—or the blood change may be a diminished coagulability or some attendant alteration in the composition of the blood which has that effect. This latter idea is favoured by the marked effect produced in the cases in which I have tried large doses of calcium chloride.

If one might hazard a hypothesis to explain the eruption which sometimes occurs secondarily to the pruritus it seems possible that the vascular dilatation, and consequently increased exudation, which constitute the urticarial or erythematous wheal are due to a similar irritation of the vaso-motor nerve filaments by the blood or lymph change. The other element, the papule, is possibly due partly to the irritated state of the nerve filaments, a plexus of which surrounds the hair follicle, and partly to the effect of the mechanical irritation of scratching and rubbing on the hairs themselves which are so much more exposed to the injury as they project above the surface.

Remarks.—I have full notes of the above and of other cases, but they are given in a tabular form to economise space. Some of these cases were patients attending the Blackfriars Skin Hospital and I am indebted to the courtesy of Mr. Waren Tay for permission to publish them. As to the efficacy of calcium chloride in relieving the itching, the patients themselves—who are in these circumstances the best judges—have no doubt whatever and are loud in their expressions of gratitude. I have had many other cases and some are under treatment at the present time. The above are selected as illustrations because they are less complicated and because the pruritus was in all of them the most pronounced symptom. In all of these cases the itching was relieved, and the eruption, if any existed, disappeared at the same time. I have, so far, not met with any absolute failures, though sometimes the dose has to be considerable and continued for several weeks. In Cases 3, 4, 6, and 7 a cessation of the remedy was attended by a return of the symptoms which disappeared again on its resumption, all the surrounding conditions remaining the same all the while. This, which corresponds to Mill's double method of agreement and difference, is the best kind of evidence obtainable as to the efficacy of any drug. This was particularly noticeable in Case 6, where it occurred on two occasions.

Four of these cases are of especial interest because other remedies had been previously tried and had failed to give relief either for the eruption or the itching. Thus in Case 3 warm tar-baths, ointment, arsenic, and bromide of ammonium; in Case 4 tar-baths and a mercury and tar ointment; in Case 6 sulphate of quinine in large doses; in Case 7 arsenic, sulphate of quinine, tar-baths, and lotion had all been tried without producing any evident amelioration. In several of these cases, though I have no records showing which ones, a regulation of the dietary had been adopted, but until the calcium chloride was administered no benefit had ensued. The opportunity of trying the remedy in children for the itching that accompanies urticaria has not presented itself, but there is every reason to believe it would be equally efficacious in them also.

Mode of administration.—The doses must be considerable—not less than 20 grains three times a day—and should be gradually increased; 30 and even 40 grains have often succeeded where less have failed. The Pharmacopœia dose is from 15 to 20 grains. If administered after meals and in a wineglass of water it is surprising how little these large doses upset the stomach, and I have never known it produce vomiting. Patients sometimes complain that it makes them thirsty, and to cover the salt taste it is best administered with a drachm of tincture of orange-peel and one ounce of chloroform-water, in which form it is really an agreeable medicine and would be well taken by children. It is important that the diet at the same time should be regulated, no beer, sugar, or sweets being allowed, and meat only in very moderate quantity. The recovery of Cases 3 and 6 was certainly retarded by neglecting this. It is also important to keep the bowels acting freely. This was evident in Case 1. Although improvement is generally noted after the first dose, complete recovery is sometimes not obtained until the blood becomes saturated, and the dose must be increased until this is accomplished. In long-standing cases perseverance is necessary—e.g., Case 6. Success may follow doubling the dose if 20 grains do not succeed. The remedy seems to take longer to act in old people and inveterate cases—Case 7, for example, though Case 2 yielded more readily. When recovery is obtained the dose should be gradually, not suddenly, reduced, and it is very important that the remedy should be continued for at least from one to three weeks after all symptoms have disappeared.

It is not possible yet to indicate precisely which cases are most suitable for this treatment, but it is worth trying in all cases where itching is a pronounced feature; and if this small contribution shall have been the means of affording

[3] THE LANCET, Aug. 3rd, 1895.

[4] The disease in such circumstances is variously called prurigo, lichen urticatus, &c., and the grounds, which are conclusive, for believing that the eruption in this disease is either secondary to the itching or an effect of some common cause will be given elsewhere.

[5] British Journal of Dermatology, March, 1896.

[6] Transactions of the Royal Society, vol. lv., 1894, and Brit. Med. Jour., Dec. 19th, 1891. Professor Wright has also used the drug with success in cases of urticaria, THE LANCET, Jan. 18th, 1896, and British Journal of Dermatology, March, 1896.

relief in this troublesome condition my object will have been achieved. In most of the cases an actual cure has resulted, but in a few of very long duration (including Case 7 among the foregoing) relief was obtained only so long as the drug was being taken. Nevertheless, cure will probably result with perseverance even in these.

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"RETURN" CASES OF SCARLET FEVER.

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ON reading the excellent paper entitled "Considerations in respect to 'Return' Cases of Scarlet Fever," by the late Mr. T. W. Thompson, recently published in THE LANCET,[1] it occurred to me that some precision of view might be derived from an examination of the records of a large city, and I have therefore examined the records of the Health Office and the reports of the sanitary inspectors with that object. These records concern facts which it would not be easy to overlook and reliance may therefore be placed on them. The conclusions which they suggest, at all events for the time, may be thus briefly stated.

The phenomenon of "return" cases is not an accident, but is due to the return of cases from the hospital. If we examine what happens at home at the period before the cases are discharged and in the corresponding periods after discharge this appears unmistakable. Thus in 1894, in homes to which patients had not been sent back, there occurred in the sixth week after the eruption appeared in the first case 5 cases, in the seventh week 2 cases, and in the eighth week 2 cases. If now we take the periods corresponding to the bulk of discharges we find that in the ten days 51-60 after the eruption in the first case there were 5 cases, in the ten days 61-70 9 cases, and in the ten days 71-80 again 5 cases. In 1895 there were in the sixth week of secondary cases before discharge 2 cases, in the seventh week 1 case, and in the eighth week none. After the return of patients home there were in the ten days 51-60 6 cases, in the ten days 61-70 10 cases, and in the ten days 71-80 10 cases. These figures appear to me quite conclusive as regards the phenomena not being accidental, and appear to supply a measure of how much accident can enter into them. Mr. T. W. Thompson said that these cases occur more frequently in the autumn. This would certainly seem to indicate a small amount of accident. There appears, in truth, to be some reason for thinking that a growth of the scarlatinal infective element occurs in the soil at that period, such as we have reason to believe takes place also in the case of diarrhœa and enteric fever, which would favour accidental occurrences.

We must not make too much of the possibility of these occurrences being due to the bringing forth of clothes which had been stowed away. Whether this may have been the case in the past or not there is no reason that I can ascertain for supposing that these occurrences are now so conditioned. There can, I think, be no reasonable doubt that they are due to infection from the discharged cases, and the question is, What is the nature of the influence which it exerts? Is it due to infection attaching to the discharged cases by virtue of their own remanent infectiveness? or is it due to some infectious property which has become attached to them at the hospital from which they have been discharged? We possess the means of answering this question also by a comparison of the cases which have occurred after discharge of patients from hospital and after the discharge of patients at home.

The following figures show for 1894 the number of cases in which the eruption occurred at consecutive days after the return of a case: after an interval of 1 day, 0; of 2 days, 1; 3 days, 3; 4 days, 4; 5 days, 2; 6 days, 0; 7 days, 1; 8 days, 2; 9 days, 1; 10 days, 2; 11 days, 1; 12 days, 0; 13 days, 1; 14 days, 0; 15 days, 1; and over 15 days, 5.

The corresponding figures for 1895 are: after an interval of 1 day, 0; of 2 days, 1; 3 days, 1; 4 days, 4; 5 days, 4; 6 days, 3; 7 days, 4; 8 days, 3; 9 days, 4; 10 days, 2; 11 days, 2; 12 days, 3; 13 days, 0; 14 days, 0; 15 days, 0; and over 15 days, 2.

No second cases occurred amongst those treated at home beyond an interval of six weeks in 1894. In 1895, after the removal of isolation at home, there occurred 5 cases. The interval after discharge was 14 days in 1 case and over 15 days in 4 cases.

Now the percentages of cases treated in hospital and at home were in 1894 66 and 34 and in 1895 71·3 and 28·7 respectively. Allowing for the different causes at work which would influence these figures, and which will be discussed briefly in my forthcoming annual report, and supposing, also, these figures to be continued, there can be but one conclusion—viz., that the influence is one acquired in the hospital and not peculiar to the discharged patient. When we further reflect on the possible influences which the hospital can exert, the one factor which strikes us as probable is the storing up of extraneous infection in the air passages. The nostrils especially must intercept large quantities of infective material in the manner which has been adopted for the interception and examination of bacteria in the air. The material will be in all probability discharged intermittently and thus will take effect at uncertain but not distant periods after the return of the first case. Supposing that this were the most probable explanation of these occurrences, the course most likely to diminish their number would be for some time to keep patients apparently ready for discharge in a separate discharging ward or convalescent hospital, disinfecting the nose and throat with an antiseptic spray, and producing as free discharge as possible from the nostrils. It may also be desirable to keep the skin oiled so as to diminish the infective matter circulating in the isolation hospital and also to encourage exercise out of doors so as to assist the action of the lungs. I do not say, however, that the above explanation exhausts the subject or that some of the "return" cases do not own a different origin, only that, so far as my figures go, the explanation just given appears best to fit the facts.

Manchester.

[1] THE LANCET, Nov. 23rd, 1895, pp. 1277 and 1295.

A CASE OF AIR SUCTION AND ERUCTATION.

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IN a recent communication[1] Dr. John Wyllie has described, under the title of "Gastric Flatulence," a class of cases in which various troublesome symptoms are produced by air-gulping or air-swallowing. As a rule the gastric disease is trifling and the affection is to be regarded as dependent on a habit acquired and developed by individuals of a more or less neurotic temperament. The mechanism by means of which they are able to swallow air either into the œsophagus or the stomach is fully described, and several illustrative cases are related which show that in the writer's experience the condition is by no means a rare one. The following case shows that when untreated the results to the patient of persistent air suction and eructation may be very serious, and that when treated correctly a cure may sometimes be easily and rapidly effected, as Dr. Wyllie has pointed out.

The patient was a man aged fifty-one years who consulted me in July, 1895. He had spent a good many years abroad, and in 1871 he began to suffer from gastric symptoms, pain, flatulence, and heartburn, the result, as he considered, of drinking very freely of iced water immediately after active exercise. These symptoms increased in severity until 1873, when he returned to this country feeling very weak and having lost considerably in weight. He tried various "cures" in England which reduced him still further, but he improved markedly during a visit to Scotland under the combined influence of exercise, fresh air, and a full diet. Since this illness he had never been as strong as formerly, but continued in fairly good health until eighteen months ago, when the symptoms of indigestion became more troublesome and they had steadily been getting worse since then. On the occasion of his first visit he complained of loss of flesh and great weakness, inability to sleep at

[1] Edinburgh Hospital Reports, 1895, vol. iii.

night, and of gastric discomfort as manifested by acidity and flatulence. He was unable to perform his work properly owing to the exhaustion which quickly followed any brain effort, and physical exercise he found most tiring. For the relief of the abdominal symptoms he had been practising the Swedish exercises introduced by Dr. Ling, and although some benefit had followed as regards the flatulence the chief result was simply to produce a feeling of great exhaustion. While his appetite was always good and there had never been any nausea or vomiting, each meal was usually followed by acidity and a feeling of discomfort at the ensiform cartilage and later by flatulence and headache. For two years he had not slept well, and at the present time he scarcely obtained more than two or three hours' sleep during the whole night—four hours he would consider a good night's rest. Soon after falling asleep a feeling of acidity and flatulence awoke him, he would be compelled to get up and walk about to dispel the wind, and the greater part of the night was spent in this occupation. His appearance was that of a man who had suffered from prolonged illness, the face being drawn and haggard and the body generally emaciated. The tongue was clean and of good colour and the bowels were fairly regular. On examination the abdomen was found to be prominent and the superficial veins were very well marked. The distension was apparently due to gas in the stomach and intestines, as the percussion note was resonant all over and no abnormal thickening could be detected. The stomach note extended to the level of the umbilicus and slight splashing could be elicited. There was no history of discharges of flatus from the bowel, and rectal examination proved negative. The urine was free from albumin, the heart sounds were clear but rather weak, and there was no evidence of any local disease apart from that described. His diet was by no means injudicious, but it contained rather an excessive amount of starch and sugar, and so it was changed to a more nitrogenous one of meat, game, chicken, fish, peptonised cocoa, and a small amount of toast in order to diminish fermentative changes as much as possible. He was ordered a mixture containing strychnine and cascara and sent off to the seaside. On his return two months later he reported that owing to the excessive heat by day and the want of sleep from persistent flatulence by night he was weaker than before and had lost a few pounds in weight. The diet had suited him very well, and the acidity and gastric discomfort were much less, but he was tired after the slightest exertion and considerably depressed in spirits. Sir William Broadbent kindly saw him in consultation and suggested washing out the stomach, as he considered that it was persistently dilated, a condition which along with a high position of the pyloric orifice did not allow of its being thoroughly emptied. The patient's weight at this time was 9 st. 3 lb. On washing out the stomach about four hours after the last meal of the day the contents were found to consist of some partially digested, sour-smelling food and a considerable amount of mucus and flatus. No sarcinæ ventriculi were detected in the matter removed. This process was repeated daily and at the end of six days the patient expressed himself as feeling stronger and less easily tired during the day. He could sleep uninterruptedly for two or three hours, but then the feeling of acidity and flatulence awoke him, he got up, walked about, tapped the abdomen, and was thus able to get relief. The rest of the night was spent in short snatches of sleep and long intervals spent in trying to dispel the wind. As after the stomach was washed out the abdomen was perfectly flaccid and empty of flatus a tight flannel bandage was applied for the night so as to test the amount of distension which might occur. On the following day he stated that the flatulence had been as bad as before, but that he had not felt any discomfort from the bandage. I therefore became doubtful as to the gastric origin of this flatulence, and after again washing out the stomach asked him if he felt any wind. He replied in the affirmative and I then requested him to let me hear the wind. This he could not do lying down, so he sat up on the edge of the bed and proceeded to eructate in the following manner. Supporting himself with his hands on his thighs he threw the muscles of the neck into strong action and proceeded to make a forcible inspiration, raising the shoulders and depressing the larynx, a curious noise being produced at the same time in the back of his throat. This was followed almost immediately by a loud eructation, evidently expiratory in time, and presenting no unusual characters. The patient was able to repeat this process as often as desired without any change in the condition of the abdomen being manifested. When his mouth was kept open by means of a rolled-up handkerchief placed between the molar teeth he was able to produce the same noisy eructations. It was the necessity for getting rid of the wind in this manner, he said, which kept him awake at night and prevented his lying down. I explained to him that he was producing these eructations by drawing air into his gullet and then belching it out, that there was really no wind in the stomach, and that consequently there was no necessity for keeping up this exhausting process. It was further suggested to him that when he awoke with a feeling of flatulence he should make no effort to bring up the wind, but simply turn on his side and go to sleep again. On the following day he reported that he had carried out the instructions and had had seven hours' sleep. He awoke several times, but at once checked the desire to bring up some wind and soon went to sleep again. During the day also he had been entirely free from flatulence, having checked himself at once whenever he felt the desire to obtain relief by eructation and having found that the desire soon passed off. The further progress of the case was uneventful save as regards the rapidity of the improvement. The washing out of the stomach was continued nightly for another week (making fourteen times in all), as the patient found relief from it. At the end of that time he weighed 10 st., a gain of six pounds. He expressed himself as feeling stronger, his appetite, digestion, and sleep were good, and he had no symptoms to complain of save a slight amount of acidity at times. At the end of the next four weeks his weight was 10 st. 8 lb., a total gain of one stone. His general health and appearance were good, he slept well, and awoke refreshed in the morning. There was nothing abnormal to be detected in the abdomen except that the stomach level extended lower than usual, and the symptoms of indigestion were of such a trifling nature as to cause him little disturbance. I asked him if he could let me hear the wind still, and he replied that he thought he could but would rather not try.

It is not difficult to trace the course of this illness as far as the real gastric symptoms were concerned. The effects of the initial attack of gastric catarrh had never entirely passed off, and the patient continued to suffer more or less from indigestion as characterised by flatulence, acidity, and a feeling of discomfort in the region of the ensiform cartilage. When first seen he was suffering from atonic dyspepsia, the symptoms of which were by no means severe, and were certainly not sufficient to explain the weakness and emaciation present. His tongue was unusually healthy-looking and the appetite was always good. Under dietetic and medicinal treatment there was a certain amount of improvement, which was increased by the employment of lavage of the stomach. The fermentation and abdominal distension were markedly reduced, the digestion seemed good, and yet the result was not at all satisfactory as regards the patient's general health. Nor is it difficult to trace the gradual development of those other symptoms to which I wish more particularly to direct attention, and which were the result of habit and not of disease. In the earlier stages of the illness there certainly was considerable distension of the stomach and intestines with air, and no doubt the ejection of this by the mouth had afforded relief. But after this real flatulence had subsided a certain amount of gastric discomfort occurred at times, which was regarded by the patient as due to wind in the stomach, and forcible efforts were made to expel it. When I drew his attention to the fact that he was really swallowing air violently he was naturally surprised and incredulous. The epigastric discomfort was worst at night, and consequently the efforts to relieve it were more continuous then, and finally became so persistent that the patient himself was convinced he would be well if only he could obtain sleep. The ease with which rest and sleep were at once secured by the simple process of putting an end to the air-sucking, and the very marked improvement which followed immediately, would seem to prove conclusively that the actual gastric disease was of no great severity.

The affection of which the above case is an illustration is barely referred to, as far as I know, in the standard works on medicine, and no satisfactory explanation is given as to how the flatus is produced. In the article previously mentioned Dr. Wyllie has classified the different forms of this affection

as follows: (1) air gulping, (2) true swallowing of air, and (3) sucking of air into the œsophagus or stomach. The above case would fall under the last category, and the mechanism by which the phenomena are produced is thus described. Under normal conditions the œsophagus is collapsed and under a more or less distinct *positive* pressure from the weight of the atmosphere, which acts upon it through the thickness of the structures of the neck. But if the neck muscles are strongly contracted, the larynx pulled forwards, the chest walls raised and expanded as in forced inspiration, and the glottis kept closed, there is formed a *negative* pressure in the œsophagus which allows of air being sucked in from the mouth, and this air can be at once expelled again with a loud eructation. This description corresponds exactly with the appearances in the above case, and I further observed, as has also been noted by Dr. Wyllie, that the neck muscles were prominent and powerful from repeated exercise in forced inspiratory movements.

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NOTES ON SOME CLINICALLY INTERESTING GYNÆCOLOGICAL CASES.[1]

BY H. MACNAUGHTON JONES, M.D., F.R.C.S. IRELD.

THE notes of the following cases are recorded because of their clinical and pathological rather than their operative importance. In gynæcology, pain, local and general distress, reflex consequences, disturbances in ovulation, disorders of locomotion, powers of conception, and sexual appetites, vary considerably under what appear to be precisely similar pathological appearances, the consequence being that the management and treatment correctly adapted to one case have to be altered or modified in another. In the instance of drugs this need for the recognition of such clinical distinctions is further increased by the individual idiosyncracy to their therapeutical and physiological effects. Indications for treatment are dependent upon the position in life, the surroundings, and social responsibilities of the patient. Nor is the operative department of this branch of surgery free from the influences which this diversity in type produces. An operation that on pathological grounds is both expedient and justifiable in the instance of one woman may be inexpedient and unjustifiable in another. It cannot be gainsaid that pain which is constant in its presence, severe or wearing-out in its nature, thus interfering with sleep, capacity for locomotion, mental activity, and the proper discharge of the digestive functions, is one of the foremost incentives to operative interference. Yet it is a matter of the most common clinical observation that pathological changes in the pelvic viscera frequently bear no proportion whatever to the amount of suffering attendant upon their presence. This is not only true of the organ primarily involved, but applies to those abnormal conditions so commonly associated in pelvic disease. In fact, the most important clinical symptoms are here usually dependent upon such associations. It is impossible to differentiate them and to isolate in the connecting links in the chain of morbid pelvic change the particular part in the uterus, tube, or ovary that starts the perverted nervous impulse. One fact is certain—namely, that the pain and distress caused by ovarian and tubo-ovarian disease have been repeatedly shown to have no correlation with the extent or character of the morbid changes present. This is exemplified by a case the notes of which I give below. In operative procedures on the pelvic viscera the ever-varying and complex conditions found on opening the abdomen admit practically of no fixed rule in dealing with them. The true surgical artist is he who, while conforming to broad and unalterable surgical principles, deals with each case and its complications as it presents itself to him at the time of operation, his resources being limited by no rigid theoretical consideration, and his hand not held by any authoritative *ipse dixit*. Through such freedom of action can we alone hope for progress, and in no part of the human body is such liberty demanded more than it is in the surgery of the female organs of generation. The following cases, viewed broadly, possess no features strikingly unusual in character, so far as their operative surgery is concerned; but each affords in clinical diagnosis and treatment, and in its pathology, lessons that the most experienced gynæcologist may profit somewhat by, for is it not safe to assert that every time an abdomen is opened and the pelvis explored he is a poor student who does not derive some fresh instruction, manipulative or pathological, as the case may be?

I have to thank Mr. Bland Sutton for his invaluable coöperation in four of these somewhat obscure cases, and in another interesting case to which I refer (Case 5) Dr. Heywood Smith gave me his kind assistance.

CASE 1. *Ovarian cyst, with extensive adhesions to the omentum and bowel, twisted pedicle, and sanguineous contents; removal and recovery.*—(The following short notes are furnished by Dr. E. J. Midwinter, the medical attendant in the case.) "A married woman first noticed that there was a swelling on one side of her abdomen at Christmas, 1895, but attached no importance to it. She had had three children, aged at the time of the operation eleven years, six and a half years, and three years and ten months, and had one miscarriage between the first and second months of pregnancy in March, 1895. The last period was three weeks before the operation and was thought to be normal in colour and quantity. The periods previously to this had been normal—ever since the miscarriage in March, 1895. On February 22nd, 1896, the patient was suddenly (with no previous warning and without making any exertion) seized with acute pain radiating all over the abdomen, but which later was more localised in the right lumbar and iliac regions. She became pale, with white lips, faint sighing, and the pulse was scarcely perceptible. When she recovered from this condition the pain was severe. The temperature rose to 104° F. and she had indications of peritonitis. Her condition remained critical for three weeks, chiefly on account of the very feeble action of the heart. The pulse was weak and from 120 to 130. As the abdomen became less distended and painful a mass could be detected occupying the right side. This gave the sensation of possessing fluid contents." When the patient saw me in April, 1896, I found a swelling occupying principally the right side of the abdomen and extending as high as the right lumbar region. This evidently contained fluid. On vaginal examination a swelling was detected in Douglas' pouch and the uterus was enlarged, the cavity measuring some three inches and the fundus being felt well above the pubes. The cervix was soft and the os patulous, admitting the point of the index finger. The breasts were enlarged and sensitive, the nipples turgid, and there were dark areolæ studded with prominent follicles. The diagnosis lay between a possible tubal fœtation with ruptured sac, or an ovarian cyst. The condition of the uterus and the state of the breasts, added to the suddenness of the symptoms referred to on Feb. 22nd, made me suspicious of the former, while the regularity of the catamenia, added to the fact that the symptoms might also be due to hæmorrhage into an ovarian cyst, pointed to the latter. She had a history of a previous affection of the kidneys, and the presence on and off of albuminuria. Operation was determined upon, and carried out in April. The tumour proved to be an ovarian cyst, reaching from the broad ligament to the right hypochondrium. The omentum was closely adherent to its upper third, and the small intestine was also attached to its anterior surface by adhesions as low as its pedicle. There were soft adhesions fixing the tumour posteriorly. The omentum and bowel were carefully detached. The pedicle was found rotated through three revolutions on its axis. The cyst was full of blood, partly fluid and partly coagulated. The pedicle was untwisted and secured, and the cyst removed, as was also that portion of omentum which had been adherent, and which was somewhat injured in its detachment. The patient made an uninterrupted recovery from the operation. About three weeks subsequently there were some symptoms of cystitis, but these rapidly subsided. The twisted pedicle, the adherent omentum and bowel, and the sanguineous contents of the cyst, accounted for the symptoms present on Feb. 22nd.

CASE 2. *Ovaries and tubes removed for persistent oophoralgia; cystic degeneration of the ovaries; abnormal Fallopian tubes with irregular ostia.*—This case is recorded rather for its histological than its clinical features. The patient, a widow aged forty-nine years, had suffered for years from severe ovarian pain. She had been on and off seen by me, and had been under various treatment for chronic endometritis and cervical erosion. The uterus I curetted, and,

[1] A paper read before the British Gynæcological Society on July 9th, 1896.

notwithstanding the cure of the endometritis, the pain persisted. The left ovary could be felt behind the uterus, very sensitive to the touch. The patient herself insisted upon operation for the relief of the incessant pain, which was so agonising at times that her mental condition caused considerable alarm to her friends, and suicide was apprehended. These ovaries and tubes (as shown) were removed, the pathological report being as follows (this report is furnished by the Clinical Research Association):—

"*Right uterine appendages.*—The Fallopian tube, its ostium, and fimbriæ are normal. Attached to the posterior surface of the meso-salpinx are two pedunculated bodies nearly half an inch long. The extremity of one of these bodies is dilated into a small cyst, so that it resembles a hydatid of Morgagni. The other body has a stouter pedicle, becomes dilated towards its free extremity, and terminates in a minute ostium and fimbriæ. A bristle can be inserted into the ostium for about the eighth of an inch. The body has, therefore, the structure of an accessory Fallopian tube. The seats of attachment of these pedunculated bodies are very close together, and correspond in position with the horizontal tubules of the parovarium; their development is probably associated with these tubules, and the fimbriated body may be regarded as the persistent end of the Wolffian duct. The ovary shows much wrinkling of its surfaces at the upper pole, but the rest of the exterior is smooth and healthy. On section an oval thick-walled cyst is displayed which measures one inch in chief diameter. It contains a little blood-stained fluid, but had ruptured during removal, hence the greater part was lost.

"*Left uterine appendages.*—The Fallopian tube and its fimbriæ are healthy; there are three distinct ostia leading out of the ampulla. The fimbriæ on the edge of the meso-salpinx are numerous but appear healthy. Between the layers of the meso-salpinx there are four small cysts. The largest has an elongated outline; its long diameter measures nearly one inch and is placed almost at right angles with the axis of the Fallopian tube. From the surface of this cyst springs a small pedunculated cyst like a hydatid of Morgagni, and this resembles the structure described in the right appendages. The remaining two cysts in the meso-salpinx are the size of a pea; they do not seem to be connected with the vertical tubules of the parovarium, one being close on the edge of the meso-salpinx, and the other crossed by these tubules. But with regard to the elongated cyst the abdominal end of the horizontal tubules can be traced up to it. Hence it may have arisen in connexion with the extremity of the Wolffian duct.

"The naked-eye appearance of the left ovary does not differ materially from that of the right. Its surface is less wrinkled, and on section a similar cyst is seen at one end of the organ. This had ruptured during removal. There is another small cyst in the substance of the ovary."

The result of the operation has been to remove the pelvic pain, but the patient's mental condition, which had been considerably weakened before operation, has not as yet materially improved. Mr. Alban Doran and Mr. Bland Sutton are those in this country to whom we are most indebted for our knowledge of such irregularities in the ostia of the Fallopian tubes as are here referred to. Let us contrast the pain and the pelvic distress experienced in this case with the following.

CASE 3. *Severe hæmorrhage from uterine fibroid; oöphorectomy; persistent menstruation, with relief of hæmorrhage.*—A widow aged forty-four years, with no children, consulted me in August, 1895, for profuse menorrhagia, which had commenced in 1894. She had never suffered any pain or pelvic distress save slight dragging at the left side and was not aware of any uterine affection until she consulted her medical adviser for the hæmorrhage, who then discovered that she had a uterine fibroid. I found on examination a fairly large fibroma fixed in the pelvis and immobile. The ovaries could not be felt. The patient had an extremely blanched appearance. I advised immediate oöphorectomy. On operating I found low down a pedunculated sub-peritoneal fibroid, about the size of an orange, sprouting from the large tumour. This was removed. The uterus was quite fixed by adhesions, and with great difficulty the enlarged and diseased left ovary and the Fallopian tube shown were removed. On seeking for the right ovary there was considerable difficulty in finding it, and it was impossible to remove the entire annexa of this side satisfactorily, so bound down were they by adhesions, and so compressed by the uterus. The patient made an uninterrupted recovery, but I was disappointed to find that menstruation still continued, though in a much less degree than before the operation, which was performed in August, 1895. I examined this patient on June 24th, 1896. She is quite an altered woman in appearance and general health The uterus is much smaller and is now quite movable. Menstruation continues, and though still somewhat in excess is in no way dangerous. Here was a woman who, as she herself expressed it to me, never had the least suspicion that there was anything amiss, and had never any pain worth speaking of, yet in whom all the morbid changes referred to were present.

CASE 4. *Fibroma of the left ovary in a patient aged twenty-two years.*—I now take another and most interesting case, to which I recently briefly referred in a discussion on Mr. Alban Doran's paper on Fibroma of the Ovary at the Obstetrical Society. The patient, who was unmarried, consulted me for persistent sickness associated with periodical epigastric pain and considerable anæmia in April of this year. She had had various medical opinions and had been subjected to a variety of treatment. For eighteen months previous to seeing me the catamenia had been absent. These were the only symptoms present. I made a careful examination of the lungs, heart, and abdominal viscera, with a negative result. I suggested a Weir Mitchell course and a careful examination of the urine and blood, as I was apprehensive that the anæmia might be of a pernicious character. Her medical attendant acquiesced in this view, and accordingly she entered a medical home for treatment. The morning subsequent to her admission I determined to make another abdominal examination, and was surprised to find a movable tumour about the size of a small orange in the left inguinal region. The patient herself was unaware of its existence, nor had she suffered any pain other than the epigastric. I immediately notified to her parents and medical adviser the discovery of the tumour and my determination to examine her under an anæsthetic the following morning. Going casually to the Home to arrange for the examination which was to be made early the next day I thought that I would again palpate the left side, when to my astonishment I found that the tumour had disappeared and was nowhere to be found. Surmising that it might possibly have been a fæcal mass in the sigmoid flexure, and finding a hard fæcal mass in the rectum, I ordered an injection, thinking that I might possibly have dispersed the mass by manipulation. The following morning under ether I made a vaginal examination and discovered a tumour lying between the uterus and bladder in the middle line, hard and movable. The choice lay between a dermoid cyst or a fibroma of the ovary. I determined its freedom from both bladder and uterus, though it was evident that by the distended bladder on the previous morning it had been raised from its pelvic position, to which it sunk again when the bladder was empty. Two days afterwards I removed the tumour in the presence of Mr. Bland Sutton, who has himself examined it carefully and is satisfied of its purely fibrous nature. It was encapsuled, and when cut across presented a pearly white and glistening appearance, showing to the naked eye wavy fibres. (Sections of the tumour were shown under the microscope.) The following is the report received from the Clinical Research Association:—

"The ovarian tumour shows microscopically nucleated spindle-celled tissue, which is arranged in very definite interlacing bundles. The coarseness of the tissue, the distinct formation of fibres, and the wavy arrangement of the fibres are good reasons for regarding the tumour as a fibroma rather than a sarcoma. Sections have been made from different parts and they all show the same appearances. The vessels in the tumour are numerous and well formed.[2] The naked-eye appearance of the small fragments of the ovarian tumour which have been preserved is somewhat like that of uterine fibroid. The cut surface shows white fibrous strands which interlace, but are not arranged in whorls. Here and there small grey areas may be seen distributed among the white strands. There is a distinct capsule composed of thick white peritoneum and a subjacent layer of cellular tissue traversed by numerous vessels, some of which are of considerable size. Septa pass from this capsule into the tumour for a short distance, indicating that the tumour has

[2] The tumour when cut across I placed under running water for thirty-six hours, and then it was sent to the Clinical Research Association. The cut surfaces had a pearly white fibrillated appearance. Unfortunately, owing to a misunderstanding, the specimen was not mounted for exhibition.

a tabulated outline. The serous surface of the fragments is quite free from adhesions. The tumour as a whole feels firm and elastic, but less dense than the common fibroid."

The other ovary was not typically healthy, as there was some cystic proliferation and it was very slightly enlarged. However, there was nothing to demand its removal. Note in connexion with this case the youth of the patient, the absence of menstruation, the painlessness of the tumour, its extreme hardness to the touch, its freedom and mobility, and associated movement with the bladder. Fibroma of the ovary is a rare pathological condition, and there are few such typical cases on record as the one I have cited, which, when I referred to it at the recent discussion at the Obstetrical Society, Mr. Alban Doran described as unique and typical of its kind. The patient subsequently passed through the Weir Mitchell course, menstruated naturally after the operation, and left the home in good health.

CASE 5. *Interesting case of pregnancy after oöphorectomy and removal of an ovarian blood-cyst.*—On April 13th, 1893, at the British Gynæcological Society I exhibited an ovarian blood-cyst which I had removed from a patient under peculiar circumstances. She was thirty years of age at the time of operation, and had been married for over six years, never having conceived. In 1883, at the age of twenty years, she had an attack of pelvic peritonitis. In 1884 she had a recurrence, which spread into general peritonitis of a most alarming character and which nearly proved fatal. This was in January, 1884, and six months later there was another attack. On and off after this she suffered from abdominal and pelvic pains, but gradually improved. In 1886 she married. In 1889 she consulted me for a severe cervical erosion, and there was then decided enlargement of the left ovary. I treated her, cured the uterine affection, and sent her for a course to Woodhall Spa. During 1892 the recurrent pains from which she had suffered more or less for years became more constant, and at last, especially at the right side, were incessant. In February, 1893, I performed oöphorectomy, Dr. Heywood Smith kindly assisting. On opening the abdomen the peritoneum was found to be extensively adherent to the bowel, which latter was opened for a short distance in trying to make the peritoneal incision. Another peritoneal opening had in consequence to be made in the left inguinal region. The sac of the left ovary was found to be about the size of an orange and full of blood, completely bound down by adhesions, which were separated with difficulty. The cyst, with the left tube, was removed entire. On seeking for the right ovary it could not be found, and it was only after considerable searching that it was detected attached to the pelvic wall, to which it was firmly fixed by adhesions, and considerably reduced in size. The prudence of removing it was discussed, but in the face of the protracted operation and the exhausted condition of the patient, it was considered wiser not to subject her to any additional shock which the attempted removal of the firmly adherent and apparently atrophied ovary would involve. A drainage-tube was inserted after operation and she made an uninterrupted recovery. Menstruation continued, and on and off she suffered again from pelvic pain in the right side, and in 1894 there was a distinct swelling to be felt in the right broad ligament. This disappeared, but there was always more or less distress and pain, especially with the menstrual periods. Towards the end of 1895 menstruation ceased and I found that she was pregnant. She was delivered of a male child on May 31st, 1896. The case carries its own lesson.

CASE 6. *Chronic suppurative endometritis, with salpingitis, cured by curettage, chromic acid, and iodoform; drainage of the uterus.*—I shall condense into a few sentences the facts of this case, quoting it simply to show the effects of thorough curettage with iodoform packing of the uterus, in an extreme case of inveterate suppurative endometritis with salpingitis, the uterus being enlarged and retroverted. A widow aged forty-eight years had suffered for years from an enlarged and retroverted uterus. She had also two or three attacks of pelvic perimetritis. There had always been more or less endometric discharge since the birth of her child twelve years previously. In November, 1891, she had an attack of pelvic peritonitis. This subsided under treatment, and subsequently she had a slight operation for hæmorrhoids and a small fistula of the rectum. The periods were always excessive. Suddenly, in January, 1893, having been subjected to a chill during menstruation, she had a severe attack of perimetritis, during which there was rather profuse hæmorrhage for a few days. This was attended by considerable fever, which lasted for nearly three weeks. The perimetric effusion was considerable. The uterus was forced down almost to the vaginal outlet. I feared at the time that there might be hæmatocele complicating the perimetritis. In the following month the purulent discharge recurred, and this continued notwithstanding various forms of intra-uterine medication, and on two occasions a prolonged course of the bromo-iodine waters of Woodhall Spa. The general health remained good, and there was little pain, but the discharge was at times most profuse, requiring the change of four sanitary towels in the twenty-four hours. As these recurrences of discharge continued until the beginning of 1895 I determined to thoroughly dilate and curette the uterus. This I did on April 20th, 1895. The uterus at the time of operation was enlarged, the cavity measuring four inches, retroverted and retroflexed, in which position it was fixed. On free dilatation a quantity of pus poured from an enlarged fundal cavity. Curettage was conducted with every antiseptic precaution. A solution of chromic acid, one drachm to the ounce, was applied subsequently to the use of the curette. The large cavity was packed with iodoform gauze, and this, after the first few days, was renewed from day to day, the cavity each time being wiped out with a 1 in 5000 perchloride of mercury solution and the vagina packed with tampons of the same. Some slight discharge appeared at the end of the third week, but intra-uterine dressings were continued until it had completely disappeared. The final result of this case was a reduction of the uterus to about one-half its size and the restoration of mobility. The statement of the patient, in writing to me this month, over a year after operation, was: "Present state of health excellent; never felt so well in my life."

CASE 7. *Case of tubal gestation; operation and recovery.*—A married woman aged thirty-eight years had had four pregnancies, with one miscarriage two years previously. The youngest child was aged fifteen months. The catamenia were regular after the birth of this child. The patient had menstruated during previous pregnancies for several months. During the last pregnancy the catamenia continued for nine months. A menstrual period commenced on April 5th, the regular time, but did not terminate as usual and there was a constant show for two weeks, during which period she complained of violent pain in the left iliac region, with constant nausea and attacks of faintness and with pain in defæcation. On May 6th she was admitted into Stanmore Cottage Hospital complaining of pain, especially over the left side. There was a swelling in the left inguinal and hypogastric regions and still some hæmorrhagic discharge from the uterus, the bowels moving with difficulty. I saw her in consultation with Dr. Hamilton Allen on May 14th and found the condition of things as mentioned. There was then considerable fulness in the left fornix. The os uteri was patulous and there was sanious discharge from it. It was decided to dilate the uterus and explore the cavity. This was done with a negative result. At the same time the friends were told that an operation would in all probability be necessary. I saw her again with Dr. Allen on the 19th and decided that if there were any change for the worse abdominal section should be performed. From the 20th to the 22nd pain and distension increased, and the temperature range, which previously had been nearly normal, varied from 100° to 102°. The bowels could not be moved by enema. On the 23rd she was operated upon. Mr. Bland Sutton was present, rendering me valuable aid during the operation. On opening the abdomen a large sac, extending above the umbilicus, was discovered. To the anterior surface of this the bowel was adherent in parts and also the omentum. It was firmly fixed posteriorly and quite impossible to separate. On tapping the sac, after careful protection of the bowel with sponges, it was found to contain semi-coagulated blood. The sac wall was, therefore, freely opened and the contents turned out. The edges were pared and the sac was stitched by interrupted fishing-gut sutures all round to the peritoneum, which was then brought together and sutured, leaving sufficient space for a drainage-tube. The abdomen was closed by three sets of sutures and a drainage-tube left in. The temperature remained normal after the operation and the tube was removed on June 1st. The patient made an uninterrupted recovery. My first impression on seeing this case was that it was one of extra-uterine fœtation, the date of which could not be determined from the previous history. I thought also that there might be a pelvic hæmatocele caused by the rupture of hæmato-salpinx, or

possibly due to an early miscarriage. I certainly was astonished on seeing the size of the sac, the thickness of its walls, and the extent of the adhesions. The contents were afterwards carefully examined for the presence of a mole, but such could not be found. No tube or ovary could be detected on the left side. There had evidently been recurrences of hæmorrhage, and a recent bleeding within the few days prior to the operation explained the symptoms from which she suffered and the sudden increase in the size of the swelling.

CASE 8. *Vasomotor colouration of the face, with pigmentary changes associated with abnormal menstruation.* (A drawing was exhibited which was taken from the patient.)—A woman twenty-two years of age suffered from the most severe dysmenorrhœa and oöphoralgia. This had lasted for some three years and first came on after a shock. I saw her last November, being indebted to Mr. Roe Carter of Sydenham for the case. There was a conical cervix with the ordinary pinhole aperture. I divided the cervix, and she wore an intra-uterine stem for a short time. The operation had no material effect on the dysmenorrhœa. Subsequently I tried both faradisation and galvanism, also without effect. But what I wish to draw attention to specially is the curious discolouration of the face, much more marked than in ordinary menstrual chromidrosis or pigmentation of the lids. I have not seen any case recorded exactly like the one I refer to. On two occasions I have seen the cheek ecchymosed exactly as if it had had a severe contusion from a blow, passing subsequently through the various phases of colouration. The circles under the lids, extending below the malar bones, often varied in hue, and these changes were frequently very rapid, varying from purple to a deep greenish black. Sometimes the forehead became involved and the whole face would assume a purplish colour, the conjunctivæ sharing in the suffusion. These changes generally preceded the catamenial epoch, becoming intensified during its occurrence and disappearing slowly after its close.

Harley-street, W.

ON SUGAR AND CHAMPAGNE IN GOUT.

BY GEORGE HARLEY, M.D., F.R.S.,

FORMERLY PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, AND PROFESSOR IN UNIVERSITY COLLEGE, LONDON.

As the remarks made on the effects of champagne on gout in my paper entitled "Gout in Relationship to Liver Disease"[1] have been traversed by Dr. Thorowgood,[2] it may be well for me to explain more fully my contention that medical men err in telling gouty patients that extra dry and *brut* are the safest kinds of champagne for them to drink. For like most other widely spread popular notions that of the pernicious effects of sugar in cases of gout is open to grave criticism, seeing that not only can no reliable facts be adduced in favour of the statement, but no reliable authority for the assertion can be cited even by its believers.

There are plenty of vague traditions that someone knew somebody else that knew someone whose gout was brought on by a too free indulgence in saccharine matters. But when the legend is critically inquired into its foundation is found, like the historical house in Scripture, to rest on nothing but sand. Nor is this surprising when one reflects that the "popular" objection to sweets in gout one hears so much of in this country is alike contrary to everyday experience and scientific observation. 1. Because, were it true, children and women, who consume most sweet things, would be more subject to gout than men—which they are decidedly not. 2. Uric acid, which is now conceded by all leading chemical pathologists to be the cause of gout, is a nitrogenous compound, and sugar contains no nitrogen whatever. 3. The urine of the herbivora, whose food is rightly sugar-forming, is *alkaline* and not acid. 4. There exists no proof that a sugar-indulging teetotal member of a non-gouty family has ever been attacked with gout when all his brothers and sisters have escaped the disease. 5. The women in Eastern harems, who pass indolent lives and subsist almost entirely on sweetmeats, should all be afflicted with gout in some form or another—which they are not. 6. Gout is not met with among the negroes brought up on sugar plantations, who from their earliest years consume more sugar than any other class of people whatever. 7. A fit of gout cannot be induced experimentally by taking sugar. My son (Professor Vaughan Harley), while working at the Sorbonne, in Paris, took 400 grammes (13 ounces) of sugar daily, until he completely upset his digestion, and notwithstanding that he is, like myself, hereditarily gouty he totally failed to induce a single gouty symptom. He even took, while working in Professor Mosso's laboratory at Turin 17½ ounces of sugar in the 24 hours without producing a single symptom of gout.

One should at least be able to cite a case or an experiment which will bear the test of philosophic scrutiny, proving that a true attack of gout has been engendered by the eating of saccharine foods before venturing to assert that gout is the offspring of sugar. And as until the above seven problems—which are only a portion of what might be adduced—can be satisfactorily overthrown we may brush aside as a mere figment of the imagination the sugar-engendering theory of gout I will without more ado tackle the question:

DOES CHAMPAGNE CAUSE GOUT?

This question can be equally truthfully answered in the negative as in the affirmative, for the chemical composition of different champagnes is so different that while the majority of persons may indulge in one kind with perfect impunity a paroxysm of gout speedily follows a glass or two of another. People have such different idiosyncrasies that in some gout is brought on by all kinds of champagne, in the same way as it is in others brought on by all kinds of whisky. This is not to be wondered at, seeing that from champagne being a manufactured article its effects on the human constitution vary not only according to the quality of the grape juice from which it is made, and the method adopted in its preparation, but likewise according to the ability and ingenuousness of its fabricator. Consequently in prescribing champagne to an invalid a medical man should never lose sight of the fact that he ought to be as careful in selecting the wine ordered as he is in selecting the drugs prescribed.

The generic name of champagne is in no case of itself a guarantee as to what the therapeutical effects of it will be on a sick person. For careful clinical observation has shown that while one class or kind of champagne may prove not only an agreeable exhilarating beverage to the healthy, but a palatable restorative remedy to the sick, another, though equally exhilarating to the healthy on account of the alcohol it contains, may be a disease-increasing instead of a disease-diminishing agent to the invalid. For champagne contains a host of active ingredients besides spirit, sugar, and fizz. I emphasise this remark from its being well known that many practitioners simply know that there are two main varieties, called respectively sweet and dry. And as it is to be feared that even the notions they have regarding their chemical compositions and consequently their therapeutical actions are of a somewhat hazy character, it may be well briefly to explain what are their more salient differences.

In the first place, then, the word "dry" when applied to champagne is a misnomer, as it simply implies that the wine contains but little saccharine matter. Port wine becomes dry in this sense by keeping it twenty, thirty, or forty years. For in that time the sugar it originally contained has become transformed into alcohol. Hence what it has lost in sweetness it has gained in alcoholic strength, and not only so, but likewise in flavour. For by age are developed the fine aromatic ethers which give to old wines their exquisite vinous bouquets. It takes from nine to twenty years to make champagne dry. But as it is not profitable to keep it in stock for anything approaching to that time the manufacturer adopts the plan the sherry merchant did, though in a different way, of giving his wine the semblance of being dry. Sherry was easily made to taste dry by treating it with plaster of Paris. The public, however, after a time discovered the fraud, and as a natural consequence sherry drinking went out of fashion. The champagne manufacturer is now equally engaged in killing the goose that lays the golden egg by putting on the market a rough, immature wine, which to the uninitiated tastes as if it were dry, on account of its acidity. Strange though it may seem, not one Englishman in a thousand, unless he be in the champagne trade, can distinguish a sour sparkling wine from one that has become dry by age.

His idea, too, that champagne, even of the *brut* variety, is made without sugar is equally erroneous, as well as that the

[1] THE LANCET, July 4th, 1896.
[2] THE LANCET, July 11th, 1896.

sugar in champagne is bad for gouty people. On the contrary, sugar is about the least deleterious constituent of wine.

The process of champagne manufacture is briefly as follows:—(*a*) Every kind of champagne is made artificially out of a still wine which has been prepared, as all other still wines are, be they port, sherry, or claret, by the fermentation of the sugar contained in the grape juice. Consequently (*b*) it is as absurd to speak of a natural champagne as it is to speak of a natural cheese—which is in like manner essentially a manufactured article. (*c*) There are three distinct stages in the production of good champagne, and in each of them the presence of sugar is absolutely essential. The first stage consists in the rapid fermentation of the sugar naturally contained in the juice of the grape at a temperature of between 60° and 70° F. in open tubs, so that the carbonic acid generated may escape while the alcohol remains behind. The next stage is the conversion of the still wine into a sparkling liquid. This is accomplished by transferring it to bottles before the fermentation has entirely ceased and corking them up tightly, so that the carbonic acid gas now generated may be retained in the wine and escape in sparkling bubbles from its surface when the bottle is opened and the wine poured into a glass. As it is during this stage that most of the aromatic vinous aromas are developed it is not only conducted slowly, at the low temperature of 43°, but the fermentation process is kept up for weeks, months, or even years, according to the quality of the vintage and the price the wine is expected to ultimately bring.

The bottles until now have stood with their bottoms uppermost in order that all the dirty débris resulting from the fermentation of the sugar may fall into their necks and be the more easily got rid of at the period of *degorgement*—a process which renders the wine clear and pure.

Before being ready for the market, however, it has, in order to make it palatable, to undergo a softening process, for in its then state it is so rough and sour that nobody would drink it. The viticulturist himself speaks of it as a *vin brut*, meaning thereby an acrid, immature article. Consequently he has to add to it a sweet liqueur in varying proportions to suit the tastes of his different customers. The softening process is known under the name of "dosage" and the liqueur employed is made by dissolving pure sugar-candy in fine old champagne along with a certain amount of the finest flavoured old liqueur cognac procurable.[3]

Strange to say, although the quality of the vintage has a great deal to do with the composition of the dosage liqueur employed in different years, according as the season has been a good or a bad one, yet nationality is always the most important factor in determining the relative quantities of liqueur added. For each country has its own relative proportion of dosage, thus:—

For Russians	from	14	to	16	per cent.	of	liqueur	are	added.
,, Germans	,,	11	,,	13	,,	,,	,,	,,	,,	,,
,, Americans	,,	8	,,	10	,,	,,	,,	,,	,,	,,
,, Frenchmen		8			,,	,,	,,	,,	,,	,,
,, Englishmen		2	,,	5	,,	,,	,,	,,	,,	,,

It is, however, only in recent years this low percentage of liqueur has been put into the wine sent to England. Englishmen's champagne used to have exactly the same percentage of dosage given to it as was given to Frenchmen's. For the 8 per cent. has the advantage of not only making the wine keep better and allowing the sour acetic acid to become mellowed by age during its contact with the sugar, but during the gradual transformation of the sugar-candy into alcohol some of the most delectable of the fragrant acetous ethers, so highly prized by connoisseurs, are developed. Whereas all these advantages are put a stop to by drinking an imperfectly prepared sour wine under the misleading titles of extra *sec* and *brut*. It is simply because it does not taste sweet that we drink it in the belief that it is dry. This delusion is, however, the least misfortune entailed. For it so happens that vinegar—acetic acid—in combination with alcohol is known to be one of the most potent inciters of gout and liver diseases, much more so than any of the other acids naturally contained in wine. So it is not surprising that champagne has got a bad repute in gout case.

Since, however, the facts cited in the earlier part of this article prove that sugar cannot give gout, and that sugar even in combination with alcohol does not cause gout is shown not only by the fact that gout was a disease almost unknown in Scotland at the time when toddy drinking was so common, and everyone knows that toddy is a strong concoction of whisky, sugar, and hot water, but that sweet champagne drinkers of the Continent are far less affected with disease than sour champagne drinkers of England, it is not difficult to understand why many hereditarily gouty people like myself can indulge in the rich so-called sweet champagnes of France with impunity, whereas a single glass of the English extra-dry and *brut* varieties, by virtue of the unnecessarily excessive quantity of vinegar they contain, immediately provokes a paroxysm of gout. Moreover, the fact that sugar has been shown by carefully conducted scientific experiments to be not only a potent muscle food[4] but a powerful exhaustion restorative is a strong additional reason why, when giving champagne to a weak, exhausted invalid, preference should invariably be given to the rich and properly prepared varieties instead of to spurious dry kinds, which are most probably as little likely to benefit a patient as a similar strengthened alcohol, vinegar, and water concoction would be.

So well is the fact of the injurious effects of crude champagne appreciated by manufacturers that some of the highest standing refused to send any of it out under the term of extra dry until they found that other firms were winning from them their English customers. Some of higher moral tone still decline to do so, and I feel certain they will in the end be gainers by their resolve; for already many persons are beginning to discern for themselves that the so-called extra-dry and *brut* champagnes are simply sour wines with misleading titles.

Harley-street, W.

[3] The process of champagne manufacture has been fully described by me in an article headed "Champagne" in The Contemporary Review of June, 1896.

[4] See Sugar as a Food in the Production of Muscular Work, Proceedings of the Royal Society, 1894, and Value of Sugar, and Effects of Smoking on Muscular Work, by Vaughan Harley, Journal of Physiology, 1894.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF PERFORATING GASTRIC ULCER IN WHICH THE OPENING, BEING OTHERWISE INTRACTABLE, WAS CLOSED BY MEANS OF AN OMENTAL PLUG; RECOVERY.

(Under the care of Mr. WILLIAM H. BENNETT.)

IT is now more than five years since Senn[1] first suggested the use of a portion of the great omentum as an external protection in operations on the hollow abdominal viscera. The method has been extensively followed, though probably hardly to the extent which it deserves. It has been found especially useful in repairing the loss of peritoneum in abdominal operations. The procedure ("omental plugging") adopted in the case here reported, though a modification of Senn's original method, is yet sufficiently different from "omental grafting" to deserve a distinctive name. The success which has attended its use in this case justifies its more extensive employment; for under certain circumstances the suturing in the ordinary manner of an extensive lesion of a hollow viscus like the stomach is prone to cause an amount of distortion which is not unlikely to interfere with its function. We are not aware of any previous case in which the omentum has been used as here described. For the notes of the case we are indebted to Mr. A. H. Ward, late surgical registrar to the hospital.

A man aged thirty-two years was admitted under Mr. Bennett's care on April 27th, 1896. In September, 1895, the patient had been operated upon for the radical cure of double inguinal hernia at another London hospital. Since that time he had been troubled much with constipation and indigestion, which no treatment seemed to affect in any way. For six weeks he had suffered continually from abdominal pain, for the most part about the umbilical

[1] Intestinal Surgery, pp. 172 and 205.

region; at times there had been tenderness over the corresponding area, and he frequently felt much "blown up" after taking food. For a fortnight the constipation had been increasing, and five days before his admission became absolute, no action of the bowels having occurred since April 22nd. For four days there had been frequent vomiting, at first "bilious" in character, but soon changing to the foul semi-stercoraceous type. Five hours before admission he was seized with acute abdominal pain, with severe vomiting and shortness of breath. He was seen by a medical man, who sent him to St. George's Hospital as soon as possible. On admission the man was cold, clammy, and almost pulseless. Under the influence of hot bottles and alcohol he rallied somewhat. The abdomen was universally tender and distended; there was some hiccough, with acute pain especially about the navel. The general aspect of the case was that of intestinal obstruction with perforation. Mr. Bennett performed median abdominal section below the umbilicus at once. There was general peritonitis. Upon introducing the hand into the upper part of the abdomen and raising the intestines for purpose of examination there came a rush of fluid containing particles of food. The abdominal incision was therefore prolonged upwards and search was made for a perforation of the stomach. This was found about two inches from the pylorus on the upper aspect. The parts were greatly matted together, and much difficulty was met with in separating the adhesions between the stomach and the liver. Upon exposure the perforation was found to be somewhat irregularly oval in shape and about half an inch in its longest diameter; the surrounding induration of the stomach walls was more than usually hard and at least three inches in diameter. Upon attempting to close the perforation in the usual manner by turning the peritoneum over it and fixing by suture it was found impossible to do so in consequence of the extent of the induration, which led to the majority of the sutures repeatedly cutting their way out because of the great tension required to approximate properly the peritoneal edges across the opening. Mr. Bennett, therefore, selected a suitable portion of the omentum, turned it up, and pushed as much as was necessary into the stomach perforation to completely close it like a cork. This plug was subsequently fixed in position by a single suture passing through the whole thickness of the plug (and of the stomach walls at the point of perforation) and by four or five other sutures, which, after transfixing the base of the plug, were made to bring the peritoneum on each side into contact with it (the peritoneum at the same time being made to overlap it as much as possible) by the Lembert method. By this plan the opening was found to be firmly closed. The abdominal cavity having been washed out and all visible particles of food, &c., sponged away, the wound was brought together with fish-gut sutures in the usual manner. The subsequent progress of the case was uneventful. Nourishment was commenced by the mouth on the 28th; after this the patient rapidly began to rally from the collapse which continued after the operation. There was some transient abdominal distension on the 29th and 30th, which was easily relieved by a rue enema. The abdominal wound healed well. Fish diet was commenced on May 12th; ordinary food was taken with zest and without any dyspeptic symptoms by May 23rd. On June 10th the patient was sent to the Atkinson-Morley Convalescent Hospital and remained there till the 24th, when he reported himself to Mr. Bennett at St. George's Hospital. Although still rather pale he had gained flesh, the bowels were acting regularly without the aid of medicine, there was no dyspepsia, and the man stated that he felt in all respects better than he had done for some years.

Remarks by Mr. BENNETT.—Recovery after operations for the closure of perforation from gastric ulcer has now become so comparatively common in competent hands, when the condition is dealt with at a sufficiently early period after perforation, that the record of a single case is hardly justified by the mere fact of its having terminated successfully. My main object in publishing the present case is to call attention to the method adopted of using an omental plug in closing the opening. So far as I know the proceeding is a novel modification, and it certainly succeeded beyond my expectation. It will have been noted from the description of the operation that the peculiarity of the plan lies in the omentum being pushed into the perforation like a cork instead of being laid over the orifice, as is done in applying the orthodox omental graft. It was quite clear as the operation proceeded in this case that I had no chance of closing the opening by sutures in the ordinary fashion. At first, therefore, only two alternatives presented themselves: (1) to resect the whole of the indurated portion of the stomach, or (2) to stitch the edges of the perforation to the abdominal wound, leaving a gastric fistula which would require to be dealt with later if the patient survived. The former of these plans was, in the patient's condition, too extensive to be seriously considered, and the latter affords at the best a most unsatisfactory result. Whilst considering the possibility of employing an omental graft in the ordinary way, which in a case like this did not seem to be a very promising proceeding, it struck me that if the opening in the stomach could be closed by using a piece of omentum as a cork the requisite healing might follow. The result fully justified the method, and I shall not hesitate to employ it again in any case of gastric perforation with which I have to deal if great difficulty arises in closing the opening by suture. A further point of some interest in the case was the curiously deceptive character of the symptoms. Beyond the acute pain there was nothing which pointed to gastric perforation—in fact, the case presented fairly characteristic symptoms of intestinal obstruction only. As seems to be the rule rather than the exception in these cases of perforating gastric ulcer, there had been no hæmatemesis. My experience of the operative treatment of perforation of the stomach is limited to three cases, including that now related, the two others having been already published in THE LANCET.[2] All the cases have recovered, and those previously recorded still remained well when recently heard of.

Medical Societies.

BRITISH GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—Notes on some Clinically Interesting Gynæcological Cases.

A MEETING of this society was held on July 9th, Dr. CLEMENT GODSON, President, being in the chair.

Professor ALFRED SMITH (Dublin) showed—(1) Uterus removed by Vaginal Hysterectomy for Malignant Adenoma of the Cervical Glands; and (2) Fibro-myomata removed by Intra-peritoneal Enucleation.—Mr. BOWREMAN JESSETT noted that Professor Smith used clamps instead of ligatures in the first case. He had lately seen M. Doyen of Paris, who told him that there the clamps were always used, and that by that method the uterus could be removed in five minutes. With the ligatures the operation took at least twenty minutes.—Dr. HEYWOOD SMITH thought the clamps had fallen into disuse because they were not generally left on long enough; they should be left on three days.—Mr. J. W. TAYLOR had used Doyen's method. Doyen employed special clamps, so adapted that the whole broad ligament was well grasped. The operation resembled a vaginal cœliotomy and the forceps were applied from above downward.—After some remarks by the PRESIDENT, Dr. PURCELL, and Dr. MACNAUGHTON JONES, Professor SMITH replied.

Mr. J. W. TAYLOR (Birmingham) showed—(1) Tubal Abortion showing Encapsulation of the Blood-clot, Myoma of the Uterus in the same case; and (2) Cystic Myoma and Pyosalpinx; Panhysterectomy. The operation in the second case was performed much in the manner of Doyen. The broad ligaments were divided close to the uterus without previous ligature; in this situation the main trunks of the ovarian and uterine arteries were avoided and the smaller branches were secured after division. In this case, owing to the pyosalpinx, a ligature was placed on the broad ligament of that side before division.—Mr. BOWREMAN JESSETT made some observations and Mr. TAYLOR replied.

Dr. MACNAUGHTON JONES read notes of some Clinically Interesting Gynæcological Cases, which we publish in another column.—The PRESIDENT, in thanking Dr. Macnaughton Jones for his interesting paper, which was an *embarras de richesses*, said he was specially interested in the case of fibroma of the ovary because it was very like one of his own. The patient was aged fifteen years. The cervix protruded through the hymen, being pushed down by a mass in the pelvis. Mr. Langton operated and the tumour turned out to be a fibroma of the ovary. The case had never been recorded.—Dr. JOHN SHAW had operated a month ago on a fibroma of the ovary with twisted pedicle. As regards the question of pigmentation he had seen two

[2] July 7th, 1894, and Nov. 17th, 1894.

cases which were instructive when taken together. The first was at a ladies' college in London; he discovered that the dark colour round the eyes was artificial, but it was done so skilfully as to impose upon all. The second case was genuine; the colour was so dark as to give at a distance the appearance of goggles.—Dr. MORTON said he had under observation a young girl aged thirteen years; the dark colour was not round the eyes, but on the lips. It looked like a case of vicarious menstruation.—Dr. HEYWOOD SMITH asked whether the pigmentation came on only at the time of the periods? how long it took to pass off? whether it was due to nerve irritation? and whether the patient had heart disease? He had seen a case of artificial colouration in which even the medical man was deceived.—Dr. C. H. F. ROUTH said that under certain conditions of uterine irritation the glands round the vulva and in the axillæ might become as black as ink. He had seen a patient with uterine disease who from time to time had marks on her back resembling those seen in diseases of the suprarenal capsules. She improved under a course of Turkish baths.—Dr. MACNAUGHTON JONES, in reply, said he thought the dark colour in his case was brought on by vasomotor irritation due to nervous influences and causing extravasation; it was not chromidrosis or pigmentation. He had had a case of the latter condition in a patient who had spent some time in India. He thought at first that she had blackened her eyes as they were as black as Indian ink, but he was able to satisfy himself that the colour was due to a natural pigmentation. In the case of the patient under discussion he had been able to observe the colour coming on rapidly, as after electrical applications. She had no heart disease, but suffered from dysmenorrhœa.

THE WIDNES AND DISTRICT MEDICAL SOCIETY.

Presentation to Mr. Donnelly.—Election of Officers.—First Annual Report.

THE annual meeting of the above society was held at the Town Hall, Widnes, on July 7th, Dr. D. U. MACLENNAN President, being in the chair.

The objects of this society are mutual support, the promotion of social good feeling, the diffusion of medical knowledge, and the advancement of medical science amongst its members; and the meeting was of more than usual interest, as the members of the society were desirous of showing in some tangible form their appreciation of the brave act of its secretary, Mr. Donnelly, in rescuing from the River Mersey, at the risk of his life, a young girl who was drowning. The tide at the time was "running strong" up the river, and Mr. Donnelly, on observing the serious position of the child, without a moment's hesitation threw off his coat and waistcoat and plunged into the river. After a terrible struggle, he for a time having to swim on his back, Mr. Donnelly eventually brought the child safely to shore. Owing to the serious collapse of the child the usual means of restoration had to be adopted, and on recovering sufficiently the child was sent to hospital. Those who are conversant with the locality, the nature of the strong tides, and the condition of the river water, polluted largely by chemical liquids and sewage, can fully appreciate the unselfish and heroic act of Mr. Donnelly.

The PRESIDENT, in making the presentation, remarked that it was the common lot of all medical men to come almost daily into contact with zymotic, contagious, and other diseases, which were all dangerous to health and life, without much fear or hesitation, but there were few members of the profession who to save a life from drowning would daringly plunge into the strong tidal and polluted waters of the Mersey as Mr. Donnelly had done, and he had, therefore, much pleasure in asking him to accept from the members present a diamond scarf-ring, to replace the one lost at the time of rescue, in recognition of his brave act, and also as a token of their personal regard for himself.

Mr. DONNELLY, who was much surprised at the unexpected presentation, replied feelingly in a few fitting words.

The usual business of the society was then proceeded with and the following gentlemen were unanimously re-elected:—Dr. D. U. MacLennan, President; Dr. O'Neil, Vice-president; and Mr. Donnelly, Secretary.

Several papers and notes of cases were then read and discussed. The Widnes and District Medical Society having now come to the close of its first year can look back on the work done with decided pleasure and satisfaction. The meetings are held quarterly and have been well attended. At the first meeting Dr. O'NEIL of Farnworth read an excellent paper on Chlorine and the Chrome Compounds. At the following meeting Dr. MACARTHUR, now of Fort William, N.B., read a paper of interest on the Probable Causation of Typhoid Fever. Owing to the fact that this fever has been endemic for a number of years there was much discussion, the consensus of opinion being that open ashpits and closets were the cause. An interesting note of a case of scarlet fever, where by placing a child aged three years in a cold bath for twenty minutes the temperature was reduced to normal and afterwards never rose above 100° F., was communicated by Dr. EDWARDS. Altogether, it is felt that the society has exercised a most healthy influence on the members, both from a scientific and ethical point of view, and as there is also every probability of the members of the profession in the neighbouring town of Runcorn joining the society it will be agreeably strengthened.

Reviews and Notices of Books.

Geschichte der Volksseuchen. Von Dr. B. M. LERSCH. Berlin: S. Krager. 1896. (*History of Epidemics.* By Dr. B. M. LERSCH. Berlin: S. Krager. London: Williams and Norgate. 1896. Price 11*s.*)

THE plan of this work, the compilation of which must have entailed great labour and industry, differs from that generally adopted in epidemiological literature in that it is strictly chronological. Commencing with reference to the Assyrian myth of the "Plague-god," and the earliest information of plagues in Egypt as given in the Papyrus Sallier (about 2500 B.C.), the author passes in review the tale of the centuries as told in all parts of the world up to the present year of grace. It is a marvellous record, in which there are many gaps in dim antiquity, or mere casual references in the writings of poets, philosophers, and historians, which now and then give us a glimpse of the ravages due to pestilence three or four thousand years ago. Bubonic plague, typhus fever, and the "black death" constitute many of the most widespread and desolating of these epidemics which with war and famine decimated the nations and indirectly hindered their progress. There has been a continuity through the ages of many forms of epidemic disease, although the variations exhibited, as gathered from the descriptions of eye-witnesses, form the suggestion that some of these have undergone changes in their type and character. Take, for instance, the plague of Athens in 430 B.C., recorded by Thucydides, a disease possibly imported from Africa, the characters of which were those of acute onset, high fever, gastro-intestinal and pulmonary disturbance, and an eruption of "small pustules and papules." Death occurred mostly between the seventh and ninth days, but in the case of those surviving diarrhœa continued to be a prominent symptom. On the strength of the eruption Littré and Daremberg held this to have been small-pox—a disease which can be recognised from Hindoo and other writings as having occurred in the earliest times in the East; but Dr. Lersch points out that the prominence of diarrhœa rather excludes this interpretation. Nevertheless, it is difficult to harmonise the account, sufficiently circumstantial as to be authentic, with any other known disorder; it was extremely fatal; many of those who survived lost their eyes; others had buboes (?pyæmic abscesses); and it may well be that this historically famous plague was of the nature of variola. It does not recall the features of bubonic plague, and is too rapid for enteric fever and too complicated for typhus fever. The book is, indeed, a mine of information, and as it is founded upon the records left by contemporary writers it will be of great service as a work of reference. Naturally the compression of these records within the compass of 450 pages does not afford much scope for commentary by the compiler,

but in a work of this class it is rather the record than the speculation that is looked for, and we imagine that few will be disappointed who turn to its pages to seek for historical data on epidemic diseases.

Atlas of Nerve Cells. By M. ALLEN STARR, M.D., with the coöperation of OLIVER S. STRONG, A.M., Ph.D., and EDWARD LEAMING, M.D. With fifty-three plates and thirteen diagrams. New York and London: Macmillan and Co. 1896. 42*s.* nett.

THIS magnificent work is in its way a model. Dr. Allen Starr has collaborated with an accomplished histologist, Dr. Strong, and an exceptionally skilful photographer, Dr. Leaming, to produce a work which gives in the most beautiful form the present state of our knowledge with regard to nerve cells. The mode of investigation has been the silver impregnation method, usually known as Golgi's method. The work begins with an admirably clear account by Dr. Strong of the histological technique by which the sections were prepared, and this is followed by a description of the photographic methods employed by Dr. Leaming, both of which will be of the greatest value to those working at the subject in future. The main part of the book consists of photographic reproductions of the appearances in the sections, the photographs being made directly from the sections and the negatives untouched. The result is that we have a series of plates which it would be difficult to surpass for beauty, clearness, and fidelity. Each plate is accompanied by an admirably lucid letterpress description; in fact, it is difficult to know which to praise most, the sections, the photographs, or the descriptions. Sections are shown not only from the spinal cord, cerebellum, and cerebrum, but also from parts not usually figured—viz., the corpora quadrigemina, optic thalamus, and corpus striatum.

In the preface Dr. Starr expresses his intention of following this volume with one on the peripheral nerves and the organs of sense, and we hope he will find time to carry this into effect. Those who are imperfectly acquainted with the details of the work of Golgi, y Cajal, Kölliker, and others, which has revolutionised our views of the histology of the central nervous system, will obtain all they require in a most pleasant manner by consulting this volume. The publishers have produced the book in a form worthy of its contents, and we heartily congratulate Dr. Allen Starr and his colleagues on the production of a work in which beauty and practical utility are so happily combined.

The Imperial Health Manual issued by the Imperial Health Department of Germany. Authorised English Edition. Edited by ANTONY ROCHE, M.R.C.P. Irel., &c., Professor of Medical Jurisprudence and Hygiene in the Catholic University of Ireland. Pp. 294. Dublin: Fannin and Co. London: Baillière, Tindall, and Cox. 1896. Price 2*s.* 6*d.*

FOR a Government department to make itself responsible for a popular manual of elementary hygiene and sick nursing would be quite at variance with the traditional policy of this country in such matters, but in Germany other views prevail, and the result in the present case is the publication of an excellent treatise on a subject of national importance. In the first 200 pages the following subjects are concisely but adequately treated: human anatomy and physiology, the atmosphere, drinking water, the selection and preparation of typical foods and beverages, clothing, dwelling-houses, refuse disposal, funerals, and the up-bringing of children. The remainder of the book is of an essentially medical character and is devoted chiefly to infectious diseases, surgical injuries, and the effects of heat, cold, and poison; it contains several illustrations showing the compression of arterial trunks and the use of artificial respiration. Finally, there is a section on Sick Nursing and a summary of the German laws relative to the Sale of Food, Factory Legislation, Compulsory Insurance, Vaccination, and Re-vaccination. The translation is on the whole very successful; there are, however, more typographical errors than might have been expected, and there are several inelegancies due to the selection of an inappropriate English word, such as "urinary machinery," "ticking," "tallow" instead of "suet," the lighting of apartments by "flames or red heat," &c. These trivial blemishes are, however, almost imperceptible amid the general excellence of Professor Roche's work.

L'Hypnotisme Scientifique. Par le Docteur CROCQ *fils.* Paris: Société d'Editions Scientifiques. 1896. Price 10 francs.

THIS work is a report on the subject of hypnotism made to the Belgian Government. Although it contains little on the subject that is fresh it is useful as giving impartially the very divergent views of the different schools. The first 100 pages contain the views of the Paris school, where, owing to the dominant influence of Charcot, hypnotism has been looked upon as one of the phenomena of hysteria. Then follow the Nancy doctrines, according to which hypnotism is merely a variety of normal sleep to which practically everyone is susceptible. After a few chapters devoted to the views of other teachers, Dr. Crocq gives us the result of an attempt he has made to obtain by correspondence the views of a number of physicians on disputed points, such as the nature of hypnotism, the possibility of inducing a hypnotised person to perform criminal acts, &c. The replies show that there is very wide divergence of opinion on all these points. The difficulties of observation are very greatly increased by the frequent impostures that are met with. For example, one writer bases conclusions on observations made on Eusapia Palladino, whose exposure as an impostor at Cambridge by Mr. Hodgson is fresh in every one's recollection. Conclusions are hastily drawn from very questionable data, and scientific caution is quite at a discount. There is little that is new in the book, but it may be found useful as giving in one volume most of the opinions and pretensions of those who have specially studied or practised hypnotism.

JOURNALS AND REVIEWS.

The Journal of Comparative Pathology and Therapeutics, June, 1896.—The June number of this quarterly contains much that is original and suggestive. The place of honour is occupied by a lucid disquisition by Mr. A. M. Trotter, M.R.C.V.S., on Niebel's Method of detecting Horseflesh, illustrated by fourteen experiments made by him in the research laboratory of the Royal College of Physicians of Edinburgh. The Sale of Horseflesh Act of 1889, Mr. Trotter demonstrates, is by no means entirely effective in preventing the illicit sale of damaged and diseased horseflesh as beef. By taking away the bones and mixing the meat with beef-suet the flesh is often made to evade detection, and much of it also is doubtless to be found in admixture in the form of sausages. Niebel's method, it will be remembered, rests on the hypothesis that the flesh of the horse is the only flesh that after death contains glycogen in appreciable quantities. Mr. Trotter's experiments, using Kulz's method of estimating glycogen, certainly go to demonstrate the correctness of Niebel's statements. Mr. Trotter describes the application of this method to six specimens of beef of varying ages, taken from various parts of the body, with the result that no glycogen was found in any single instance.

Two pigs were next tried. The flesh of one, described as of indifferent quality, contained a trace of glycogen. The flesh of an ewe contained none, whereas that of the horse in each case contained an appreciable percentage. The age of the flesh—i.e., the time elapsed since death—seems to exercise considerable influence on the amount found: 1·875 per cent. of glycogen was found in flesh two days old, 1·450 at four days, and at eight days (when the flesh had attained an alkaline reaction) the amount was found to have decreased to 1·375. The only obstacle to the general adoption of this test seems to be that the process is a somewhat tedious one, but it is nevertheless well within the scope of any public analyst's laboratory. Professor Hobday describes some very interesting experiments on the use of hydrocyanic acid as an antidote to chloroform, and *vice versâ*. The successful issue of nearly all his forty-three cases suggests that in these drugs it is not too sanguine to predict that we have really valuable mutual antidotes. In cases under chloroform in which the respiration had become seriously disturbed or had even entirely ceased Professor Hobday, by the administration of a few drops of the acid, either hypodermically or by placing it on the tongue, not only restored the function to tranquillity, but brought most of his cases to a successful termination. Among other articles in this excellent number are "Roaring, Whistling, and Grunting," by Professor Macqueen; "A Contribution to the Morbid Anatomy of Swine Fever" (with several good illustrations of the various ulcerations of the alimentary canal), by the editor, Professor McFadyean; and "Cataract in the Horse," by Veterinary Captain Smith.

Analytical Records
FROM
THE LANCET LABORATORY.

TRITICINE.
(GOODALL AND SONS, CASTLEFORD.)

TRITICINE is a partially cooked wheaten food occurring in fine grains obtained by a special process of manufacture. It contains an excellent proportion of soluble constituents both farinaceous and nitrogenous, while indigestible fibre has been practically excluded. We may remark that the mineral matter, including phosphatic constituents, is decidedly low, and the value of the preparation would be considerably enhanced if it could be increased. This is probably due to the particular process of manufacture adopted, but some step should be taken to restore any loss of valuable mineral material arising from this cause, which, we imagine, would entail little difficulty. We notice in an analysis of this preparation by Mr. Baynes, the public analyst for the East Riding of Yorkshire, that he regards starch as "digestive fibre." Fibre is scarcely the correct word to apply to starch.

TANNALBIN.
(B. KÜHN, 36, ST. MARY-AT-HILL, EASTCHEAP.)

Tannalbin is the interesting combination of tannin with albumin, so modified, however, under the influences of a high temperature as to be insoluble in the gastric juice but available in the intestinal tract, where it may be utilised as an effective astringent. We have tested the preparation thoroughly and found the claim correct. Tannalbin is a light-brown powder resembling tannin itself. It is unaltered in weak solutions of hydrochloric acid, but on adding a slight excess of alkali the solution turns a deep brown like ordinary tannin. It has been used with success in cases of chronic intestinal catarrh, and generally in profuse diarrhœa arising from various causes.

COMPRESSED LITHIA AND VICHY TABLETS.
(F. NEWBERY AND SONS, 1 & 3, KING EDWARD-STREET, NEWGATE-STREET, E.C.)

"Vichy and lithia lentiforms" are designed "for producing effervescent mineral waters," so that each Vichy lentiform dissolved in a glass of water presents an effervescing draught representing the natural spring water with a definite medicinal strength, and the lithia lentiform a similar draught containing three grains of the citrate. The tablets are exceptionally well composed, since they dissolve very quickly with brisk effervescence without falling to powder. The evolution of carbonic acid gas serves to mix the dissolved salts. In spite of the intimate admixture of the ingredients the lentiforms are quite permanent when kept in well-corked bottles. The solutions are by no means unpleasant to the taste and leave a clean feeling in the mouth. We may suggest that one or two tablets could be dissolved in water contained in a screw-stoppered bottle. On placing the tablets in the water the stopper could be screwed down tight. There would then be no loss of gas at all and a briskly effervescing and agreeable water would easily be obtained. These tablets are well worth the attention of the profession.

TABLOIDS OF CHLORALAMID AND POTASSIUM BROMIDE.
(BURROUGHS, WELLCOME, AND CO., SNOW-HILL-BUILDINGS, E.C.)

This combination, containing members of two different hypnotic groups, is suggested as a useful and powerful hypnotic in the treatment of many forms of insanity, and has met with considerable success also, it is stated, in diminishing the violence and shortening the attacks of *mal de mer*. For the latter purpose it is recommended that an aperient (such as cascara) be taken two nights successively just before the date of sailing, and that three of the chloralamid tabloids dissolved in a little water be taken immediately on going on board. The dose may be repeated on retiring for three or four nights if needful. The effects referable to such a combination of drugs would be those of reducing the temperature and of conducing to hypnosis when the disturbing influence is due to pyrexia, and to diminish cerebral hyperæmia.

SPHAGNOL SOAP.
(PEAT PRODUCTS, LIMITED, 70, LINCOLN'S-INN-FIELDS, W.C.)

"Sphagnol" is the name given to the product obtained on the destructive distillation of peat. It has a distinctive smell resembling tar, but of slightly less disagreeable character. It appears to have a beneficial action upon the skin, and soap containing it has been prepared for use in cases of eczema, psoriasis, and other affections. We have recently examined specimens containing respectively 70 and 200 grains of pure sphagnol. The soap is of excellent quality, being quite free from any excess of alkali. The product is a novel one, and in view of these statements is well worth a trial. We assume that it contains sulphur in some form, being derived from peat, since peat, *inter alia*, yields on distillation a tolerable amount of sulphate of ammonia.

ALAPURIN.
(THOS. CHRISTY AND CO., 25, LIME-STREET, E.C.)

Alapurin represents wool-fat brought by a series of refining processes to a very high degree of purity. It is quite free from dirty colour, possesses only a slight smell (which is agreeable rather than otherwise), and consists only of the soft and supple constituents of wool-fat. Its melting point is consequently low and is just above 100° F. according to our experiments. It is the most satisfactory specimen of purified wool-fat we have examined and on this account is admirably adapted for the preparation of unguents, for which purpose no other fat is better suited.

"ROLLED OAT" BISCUITS.

(J. CUMMINGS, 549 AND 551, HARROW-ROAD.)

These biscuits need no analysis since the high nutritive value of the oat is well known. The oaten flavour is very pronounced, while the biscuit is desirably crisp and well made.

New Inventions.

NEW ALUMINIUM UTERINE PROBE.

THE gynæcologist will find this form of probe a great improvement on Playfair's, as it will carry sufficient liquid caustic for application to the cervical canal without the necessity for arming with cotton-wool. It possesses the additional advantage of cleanliness, can be used with any

acid, and utilised as an ointment-carrier at the will of the operator. The small disc prevents carbolic acid or other liquids finding their way down to the fingers. Messrs. Arnold and Sons have made the instrument for me exactly as desired.

Cheltenham. ALEXANDER DUKE, F.R.C.P. Irel.

A NEW STEAM DISINFECTOR.

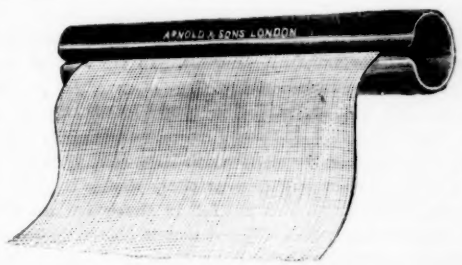
ALL competent authorities are agreed that in boiling linen and cotton goods, and in sufficiently prolonged exposure of woollen and silk clothing, bedding, &c., to a temperature of 210° to 220° F. in a properly constructed chamber, we have the one unfailing means of disinfection; but that since such exposure to a dry heat involves spoiling, if not destruction, the use of steam is indispensable; and, lastly, that the efficiency of any apparatus depends on its power of ensuring the penetration of the steam so that the interior of mattresses and goods in bulk shall be raised to the same temperature as the surrounding atmosphere of the chamber. Mr. A. B. Reck's disinfectors had been shown to fulfil all these requirements, a thermometer enclosed within sixteen folds of blanket indicating a temperature of 220° F. after fifteen minutes, and one between two mattresses 211° F. in thirty-five minutes; while all the pathogenic microbes experimented on, including those of anthrax, in these positions were invariably killed. His disinfectors are extensively adopted in Denmark, Sweden, and elsewhere, and since they were exhibited little more than a year ago at the annual Congress of the Sanitary Institute at Liverpool they appear likely to become serious rivals of those made in this country. Mr. Reck, who has been on a visit to London, has recently introduced several improvements which have had the effect of lowering the price. The steam is still condensed by the cold-water shower discharged over a "baffle" or arched screen, which protects the articles contained in the steam oven; but while the ultimate drying was formerly conducted in a separate chamber this has now been dispensed with, so that the transfer of the goods is no longer called for and the additional pipes, &c., are done away with. The lower two-thirds of the cylindrical oven is enclosed in a jacket filled with water to within a foot of its upper border and then sealed by a screw-plug, the enclosed air rendering a safety-valve superfluous. The water contained in this jacket is raised to near the boiling point by the heat of the steam in the chamber, and when the process has been continued long enough for disinfection the steam is cut off, and after the cold shower has been applied the door of the oven is partially opened and the drying is effected by the heat given off by the water in the jacket. Another improvement consists in the complete separation of the boiler from the rest of the apparatus, so that when weakened by the action of the fire it can be renewed without disturbing the disinfector, which will thus need no repairs for many years. A common saddle boiler, such as can be had anywhere, is set in masonry over the furnace, and connected by means of a pipe on either side with a steam drum fixed over the oven. Steam circulates through these pipes between the boiler and the drum, and enters the chamber through a short pipe issuing from the upper surface of the drum. The same improvements have been introduced into the portable disinfectors, with the difference, of course, that the boiler is set in an iron frame instead of in brick. The price of the apparatus, which had been from £50 to £80, according to the size of the oven, inclusive of accessories, has been considerably reduced. We have not seen the revised list, but all information and estimates can be had from the agents in Great Britain, the Blackman Ventilating Company, 63, Fore-street, E.C.

THE WALKER-MILLERAIN RAIN-PROOF FABRICS.

WE have received from Messrs. Rawlinson and Co., 29, Friday-street, Cheapside, numerous specimens of the Walker-Millerain Cycle Cloth. These cloths appear to us to be admirably adapted for the purpose indicated by their trade title. They are soft, elastic, and strong, made of pure wool and the highest quality only weighs twelve ounces per yard, the width of the piece being a yard and a half. Tasteful colours also have been selected for the dyeing, one or two of the fawn and green shades having evidently been prepared with an eye to feminine use. But the great quality claimed for these cloths is that they are rain-proof. This we have put to a very practical test by showering water over them, certainly more liberally than water usually descends upon the wayfarer in a rainstorm, with the result that we consider them practically impervious to showers. The same firm send us a specimen of their "rain-proof sealette," which is a cloth with a very soft, firm, furry face.

NEW BANDAGE ROLLER.

THIS bandage roller, which is known as Henderson's Bandage Roller, is intended to be used with all kinds of bandages to form a solid core for winding the bandage upon. In order to wind a bandage the end with the ties should be



drawn through the slot in the roller so that the bandage projects and the end ties remain packed inside the roller. The bandage can then be wound firmly upon the roller and applied to the limb or joint to be bandaged. By using these rollers bandages may be wound more firmly than is the case when none are used and the bandage can be applied more rapidly and smoothly. Where large numbers of bandages require to be rolled the rollers may be used with a winding machine to which rollers of all sizes are adjusted automatically. Messrs. Arnold and Sons have been appointed as agents for these rollers.

RECOGNITION OF AMBULANCE INSTRUCTION.—The Prince of Wales, as Grand Prior of the Order of St. John of Jerusalem in England, has approved the selection of Mr. Hugh Jones Roberts, M.R.C.S.Eng., of Pen-y-groes, Carnarvonshire, Captain of H Company, 2nd V.B. R.W.F., as an Honorary Associate of the Order, and the Queen has graciously sanctioned the enrolment. This distinction has been bestowed upon Mr. Roberts in recognition of his services as Lecturer and Examiner in ambulance work.

THE LANCET.

LONDON: SATURDAY, AUGUST 1, 1896.

WE published in our columns last week letters from Mr. BOKENHAM and Messrs. BURROUGHS, WELLCOME, & Co. commenting on our Special Commissioners' Report on the Relative Strengths of Diphtheria Antitoxic Serums, and we are glad to recognise the public spirit which pervaded both communications. First and foremost, we are at one with our correspondents in recognising (1) that the medical profession should be able to rely on obtaining antitoxic serums of uniform strength, (2) that some common standard of testing this strength should be adopted, and (3) that this testing should, if possible, be under the control of some central authority. It is necessary, however, to consider at once some of the suggestions which are made by the writers of these letters as explaining the discrepancies between the strengths which they claim for their antitoxins and the strengths calculated on the results obtained in experiments carried out by our Commissioners.

The first point raised is that if "the serums have been kept for a long period the tests may be valueless." We may refer at once to BEHRING'S statement that his serum will remain unaltered for at least a year and to the guarantee given by ARONSON that SCHERING'S serum remains unaltered for at least two years; we may also point out that in the case of the first maker the result given in the tables drawn up by our Commissioners indicate that the strength of these serums had remained unaltered during a period of twelve months. In the case of the earliest samples tested at the time of purchase it was found that the strength was approximately the same as that estimated in more recent experiments with the duplicate samples, all of which latter were tested with one stock of toxin and under precisely similar conditions. We are quite satisfied that any fall in strength which may occur goes on very gradually and that it absolutely fails to account for the exceedingly serious discrepancies which were observed. Furthermore, it is only necessary to refer to the samples which were purchased during the month of July, 1896, of which the estimated strength is only one-sixth of that claimed by Messrs. BURROUGHS, WELLCOME, & Co., to show that the suggestion offered fails to explain the want of conformity between the two sets of testings.

The next suggestion, that the difference between the results of the testings of our Commissioners in different cases may be "due to the introduction of some source of fallacy into their methods of testing," should, we think, have been formulated more precisely. The Commissioners have described with full detail their method of testing, so that it should be an easy matter for Messrs. BURROUGHS, WELLCOME, & Co. to indicate where the fallacy enters. Taking BEHRING'S serums analysed as a standard, the under-estimation of the strength of the other serums could only amount to, at most, one-fifth, an error which may in this case be practically ignored. Thus, the samples obtained during the past month (July) from Messrs. BURROUGHS, WELLCOME, & Co., instead of containing 10 units, might then be estimated to contain 12 normal units, instead of, as claimed, 60 units in 1 c.c. of serum. It is impossible to explain this discrepancy by the presence of any such source of fallacy in the methods of our Commissioners. As was pointed out in the report, the relative strengths of the serum, as calculated by our Commissioners, would certainly still hold good, and, that being the case, the relative strengths of the antitoxic serums of 10 units per c.c. (BURROUGHS, WELLCOME, & Co.) and 250 units per c.c. (BEHRING) would still be correct, as it is stated in regard to the latter that this serum is now never sent out containing less than 250 units per c.c., the estimations given in the report affording corroborative evidence of this statement.

The next point which need be considered is the statement—shall we say the reflection upon us?—that is contained in the following words: "Your immediate duty to make known your results and so prevent the continued use of serum deficient or inactive." It must be remembered in this connexion that the preparation of antitoxic serum was started at a much later period in this country than on the Continent; we should expect, accordingly, that for some time the serum produced in this country must be weaker than that produced elsewhere. It was hoped, however, that in course of time the serums of English manufacture would steadily rise in strength; but, as we have seen, as far as the antitoxin supplied by the firm in question is concerned, it still remains practically stationary, while the difference in strength of the antitoxins produced in this country and in Germany has been still further accentuated by the extra potent serums which have recently been put on the German market. We are, of course, quite willing to admit that a firm holding such a well-merited reputation as Messrs. BURROUGHS, WELLCOME, & Co. would not spare any expense in the production of so important a remedy as antitoxic serum. We cannot admit, however, that "no question of expense of manufacture arises, the cost of production of a strong serum being not appreciably greater than that of a weak one"; it must be pointed out that they supply a dose of their serum for 1*s.*, whereas a dose of BEHRING'S serum containing 3000 units in 6 c.c. costs £1 11*s.* 6*d.*, and in addition the supply of this "extra potent" serum appears to be extremely limited.

The suggestion that our Commissioners should confer with Messrs. BURROUGHS, WELLCOME, & Co.'s nominees as to the methods of testing employed is obviously incompatible with the character of THE LANCET Commissions. In their report our Commissioners have given their results and the methods employed by which these have been obtained. The only indeterminate factor is the strength of the toxin employed. We shall be pleased to obtain from our Commissioners some of the test toxin employed in these experiments for Messrs. BURROUGHS, WELLCOME, & Co.; this can then be compared with that employed by Mr. BOKENHAM.

As was stated in the report, our Commissioners retained duplicate samples of all the more recent serums purchased,

and we shall be happy to furnish the makers with any of these samples which they may desire to have for the purposes of re-testing.

IT can be no easy task for the physician who has to deliver the address in medicine at an annual gathering such as that just held at Carlisle to determine upon a topic which shall be universally acceptable to his audience. He might seize the occasion to dwell on the advances in the art and science of medicine which the last half-century has witnessed; he might point to the therapeutic triumphs that have been gained from a better understanding of the processes of disease; or he might worthily descant upon the far-reaching researches into the mysteries of etiology and their bearing upon the prophylactic side of medicine. The orator on the present occasion, Sir DYCE DUCKWORTH, eschewed those wider topics and, with commendable sagacity, selected one upon which as a hospital physician of experience he had much of value to impart, whilst to an audience composed of practitioners of medicine the theme could not fail to be of immediate personal interest. It was a theme, too, as Sir DYCE DUCKWORTH reminded them, that is as ancient as medicine itself, one of vast importance to practitioner and patient alike, and yet one which he thinks—with no little reason, we fear—has somewhat fallen into the background of medical study. Dazzled by the light which has been poured from all sides in brilliant laboratory researches, and diverted from the broader facts of observation in the absorbing quest after the infinitely little—there may be truth in the assertion that the present generation of medical men are in some respects really behind their forefathers. Such we gather to be the burden of Sir DYCE DUCKWORTH'S plaint and his justification for taking the practically important question of prognosis as the subject of his address. Needless to say that he performed his task with much ability, marshalling the facts bearing upon prognosis in various forms of disease in a manner that enabled his hearers to follow his statements with advantage. We do not propose to deal with any of them here; in so wide a field there is abundant room for divergence in matters of opinion as to the value of special signs, and we doubt not that from their collective experience the members of the Association could have supplemented some of Sir DYCE DUCKWORTH'S illustrations, and given to others greater or less significance than he did. But no one can deny to him the meed of praise for a most instructive and skilful exposition.

The capability of arriving at a correct opinion in prognosis is the result of many factors. Many an experienced practitioner is enabled almost intuitively to faithfully forecast the probable course of events without, perhaps, being able to say upon what his judgment is based. There are no definite laws which can be applied to every instance, because in each there are the individual idiosyncrasy and inherited quality to take into account which may materially modify an opinion based on general law. Exceptions which go to prove rules abound in clinical inquiry because we have to deal with organisms which, though constructed on the same type and having the same functions and the same structure, yet differ each from each in one direction or another to the most varying extent. We speak of constitutional tendencies, of family proclivities, of vital capacities, of temperaments, and use many other vague terms which are mere cloaks for ignorance, yet which do represent certain inherent qualities that may profoundly modify the susceptibility to disease and the course towards recovery or death. Then there is the environment of the sick person—the conditions under which he lives and works, the habits he has acquired—factors in prognosis which are never to be ignored. Then, too, in the case of acute disease there is the question of virulence—the variable intensity of the poison or morbific influence which may strike down the strong and spare the weak. Who can measure these things, and shall we ever attain to full knowledge of them? Lastly, there is the power of recuperation which is witnessed again and again in the most striking manner in chronic as well as in acute disorders, that baffles definition and upsets judgments too confidently made on general grounds. These and other considerations that must occur to all who think out the question render the task of prognostication in disease most complex and difficult.

Yet, as Sir DYCE DUCKWORTH related with examples culled from all sides, we do possess a large amount of knowledge which properly applied can guide us to arrive at fairly accurate forecasts. There are signs and indications which will tell us much if only we are alive to their importance. It is the main object of clinical observation—and we are pleased to find Sir DYCE DUCKWORTH emphasising the value of that particular line of observation associated with the genius of LAYCOCK—to note every departure from the normal that can be ascertained by our senses aided by scientific appliances. Yet such observation would lose much of its value and, indeed, of its interest too were it not that we hope therefrom to derive facts which shall enable us not merely to give a name to the disorder, not merely to indicate the path in which the patient may be helped towards recovery, but further to presage the course of the malady and often to dispel anxieties which are often due to lack of knowledge.

THE duty of delivering an address upon the progress of surgery is not a light one. Without a doubt it is in the field of surgery that the greatest advances in the practice of the healing art have been made within recent years. These advances have been the text of innumerable discourses, and it has become exceedingly difficult to say anything fresh upon so well-worn a theme, and a critical examination of the work done in some small part of the great field of surgery is generally regarded as out of place in such an address as Dr. MACLAREN was called upon to deliver at Carlisle.

Dr. MACLAREN chose for his theme the subject of Preventive Surgery, and it must be confessed that he used that term in a very wide sense. He defined it as "surgery in which treatment or operation is entered upon or undertaken for some risk or sequence which we expect to result from an existing condition, and not on account of what is actually present at the time." This is a wide definition, and the greater part of modern

surgery might be brought within its terms. The way in which Dr. MACLAREN actually developed his thesis shows that what he really had chiefly in his mind was the application of surgery to the early stages of disease. It is open to argument whether this is a proper use of the term "preventive," and when we find that one of the chosen examples of this beneficent form of surgery is the operation for radical cure of a hernia where "trusses fail for any reason to keep up the gut, if the truss is painful to wear and excites, as sometimes happens, repeated inflammations of the sac, or if the patient's occupation requires exceptional activity," it is evident that this belauded "preventive surgery" is no novel development and nothing to excite the suspicion of the most conservative of surgeons. The sentence we have just quoted is of course open to serious criticism. When a truss fails "for any reason" to keep up a rupture the reason is almost always in the truss and not in the rupture, and the duty of a surgeon holding Dr. MACLAREN'S views is not to operate upon these cases, but to correct the defect in the truss. By doing this he will in nine cases out of ten be able to relieve the patient's urgent symptoms, and even in the tenth case by great exactness the truss can usually be made to fit and answer admirably. Our readers are well aware that this is not the position taken up by the surgeons who have identified themselves most with the modern progress of surgery. By them a truss is not looked upon as an ideal treatment for a rupture, and, moreover, an operation that necessitates the wearing of a truss subsequently is certainly hardly deserving of the name of "radical cure." If we differ from Dr. MACLAREN in his limitation of application of this operation we must also differ from him in the little importance he attaches to the treatment of the peritoneum. He says that "the peritoneum is of hardly any value as aiding the integrity of the abdominal wall .....; in itself it is a mere slack distensile membrane with little resistant capacity." There is much evidence to contravene both these statements. We believe it can be shown that failure to deal thoroughly and effectively with the parietal peritoneum is one of the most frequent causes of failure of the operation, and that, on the other hand, where the peritoneum is satisfactorily dealt with the very simplest methods of strengthening the fibrous and muscular walls of the inguinal canal are sufficient to ensure success. It must not be forgotten, too, that by careful torsion of the sac of an inguinal hernia a commencing hernia on the opposite side can be "cured." Such a fact as that is surely a very strong proof of the great part the peritoneum plays in protecting against hernia.

Dr. MACLAREN advocates excision of diseased cervical glands rather than a scraping operation. In this he expresses, no doubt, a growing opinion among surgeons. But we are surprised to find that while obviously discussing the treatment of cases of chronic infective adenitis he speaks of two classes of cases—suppurating glands and tuberculous glands. We are under the impression that all of these cases are primarily tuberculous, although in some few cases a double infection—tuberculous and pyogenic—occurs. And what is still more strange is that the prognosis of the tuberculous glands is said to be more grave than that of the suppurating glands. The general experience is that when pyogenic infection is superadded to a tuberculous lesion, not only is the local trouble aggravated, but the risk of further and wider infection is considerably augmented.

We cannot discuss all the examples of so-called "preventive surgery" given by Dr. MACLAREN. Our readers will no doubt study the address itself. We think that the definition given is open to objection and includes more than one class of surgical practice, and that it is to a large extent artificial. Of preventive surgery proper there is at present but little—perhaps there never will be much—for by its very nature the art lends itself but poorly to this the highest aim of medicine.

Annotations.

"Ne quid nimis."

THE HOSPITAL SUNDAY FUND AND THE OUT-PATIENT SYSTEM.

THE meeting of the Council of the Hospital Sunday Fund in July is convened for the purpose of receiving the report of the Distribution Committee on the collection for the year and of sanctioning the awards to the various institutions which receive grants from the Fund. A report of the proceedings will be found elsewhere in our columns. The amount received up to the time of the meeting was a little over £44,600, including the munificent subscription—for the sixth time—of £1000 of Sir Savile Crossley. The number of institutions receiving awards for the present year is 180, being 75 more than in 1873, when the Fund was first collected. The amount received this year from church collections compares favourably with that of previous years, and in certain of the wealthier churches in which special pains were taken the results are quite a record. It is not to be expected that the members of the Stock Exchange should be disposed annually to repeat the subscriptions which made the historical collection of last year. It is, however, not a little remarkable that with ever-increasing accumulation of money in a few hands there should not annually be enough thrown into the Hospital Sunday Fund to wipe out adverse balances and to allow the authorities to fill the empty wards which seem to mock those who need their accommodation. For one pile of money such as old Guy possessed, there must now be twenty persons able to achieve much larger feats of benevolence. Not the least important part of the proceedings on Tuesday was the discussion on the ever-growing out-patient department of hospitals. This subject had been raised in January by Dr. Glover, and was referred for consideration to the Distribution Committee and some other members of the Council. The report of the Distribution Committee might naturally have been expected to make some allusion to the question, and the complete absence of any such allusion occasioned considerable surprise in the minds of some of the Council. Dr. Glover remonstrated with Sir Sydney Waterlow with reference to the absence of any mention of the subject, and, in the absence of any data, gave some which he had gathered from the statistics of the Fund of last year, showing that the expenditure on out-patients in 82 of the hospitals receiving awards, excluding dispensaries of course, was £94,604. Mr. Burdett expressed the same sentiments as to the demoralising growth of the out-patient system as Dr. Glover, but made a strange excuse for the Council. He said nothing could be done by the Council till the medical profession and the heads of it took the matter in hand. This is not so. The Council cannot be excused from doing its own duty with

reference to hospitals. It has all the responsibility of a body that gives largely to hospitals in the name of the public. It professes to take note of the merits of hospitals, which implies a friendly criticism of their faults. Whatever the timidity or indifference with which it may treat such evils as the out-patient system, and the conversion of our voluntary hospitals into huge dispensaries, it may be sure that these evils will be exposed by others. While deeply regretting that the Council has lost so good an opportunity of helping in a reform of hospital administration which more than any other would enhance its own credit and that of the hospitals, we commend the subject to the staffs of hospitals to whom the profession must look for assistance in this matter, and without whose assistance the system could not be worked.

THE TRIAL OF DR. JAMESON.

THIS trial was concluded on Tuesday last and resulted in a verdict of "Guilty" being given in the case of all the defendants. Dr. Jameson was sentenced to fifteen months' imprisonment, and the other defendants to terms varying from ten to five months, in each case without hard labour. The charge tried, although of a criminal nature, as distinctly stated by the Lord Chief Justice, was surrounded with political considerations, and has absolutely no professional interest beyond the fact that the principal defendant is—or rather, perhaps, we should say had been—a medical man of considerable distinction. It is, therefore, not within our province to comment on the case further than to say that we have no doubt that Dr. Jameson committed a very serious error of judgment which was attended by lamentable results. This error of judgment has amounted in the eyes of the law to a crime and he has received a punishment which, mitigated in degree as it evidently is, must prove to be a very severe one. It was at first understood that the prisoners, with the exception of the fact that they would not be submitted to hard labour, would be treated as common felons. But this extreme amount of degradation was not necessary to enforce the majesty of the law in the case of honourable gentlemen whom no one but prison warders could ever look on as common felons. Imprisonment as first-class misdemeanants has been rightly considered a sufficient punishment. At the conclusion of the trial much sympathy was shown with the defendants and we wish to express our own sympathy with Dr. Jameson, in which we think the profession generally will join.

A CASE OF ABORTION.

THE death of a poor woman in Derby named Julia Swift has been the subject of an inquest and of much public attention. The circumstances, too, convey a lesson of great importance to medical men which it is well to emphasise. Mrs. Swift had two children and was pregnant with a third. The husband was in prison for assaulting his wife and she dreaded his return home. She was taken ill with symptoms resembling those of an ague fit. In answer to questions by her mother and other women and Mr. Endsor she said she had been to a woman to undergo an illegal operation. She gave the name and date. Neither the date nor the name turned out to be quite accurate, but the error of date was Mr. Endsor's and the name given to the woman was an *alias* by which she was known. But the statements were taken down by Mr. Endsor, assistant to Mr. Pounds, in writing, to which her signature was obtained. She died the day after Mr. Endsor saw her, having been seen by other medical men and by a midwife. The woman named as guilty of the illegal operation was examined, but denied the charge. The coroner said there were few persons in court who had the slightest doubt as to how and by whom the abortion and subsequent peritonitis and death were caused, but that the document put in by the medical man and signed by the deceased in his presence was no evidence. The statements made by the dying woman were not made in due form before a magistrate. In answer to a question in the House of Commons the Home Secretary said the facts were essentially as we have stated them above and that he was in communication with the Public Prosecutor on the subject. We can only hope that the facts may yet be brought to light. Meantime it is well to point out to all medical men that in such circumstances the presence of a magistrate should be procured through the police and important statements should be made to him. We should have said that one or two other medical men saw the patient before Mr. Endsor. One of these, Mr. Fletcher, said he suspected that an attempt to procure abortion had been made and he had to give up attending the case to attend another serious case. The coroner seemed dissatisfied with Mr. Fletcher for not communicating with the authorities to take the depositions. The case raises again the serious question of the duty of a medical man in difficult circumstances and the degree of suspicion that will justify his communicating with the authorities.

SHELL-FISH AND TYPHOID FEVER.

THE opinions of the medical officer of health of Brighton on the subject of shell-fish and typhoid fever have been frequently expressed in the course of a recent inquiry. In his annual report on the health of the borough Dr. Newsholme reports fifty-six cases of this disease and says about a third were attributable to the eating of raw shell-fish. The evidence connecting these nineteen cases with the consumption of raw sewage-contaminated shell-fish did not consist simply in the fact that shell-fish had been consumed within three weeks before the date of onset of the disease. The facts when investigated in detail were much more conclusive, comprising as they did the significant circumstances that in the majority of cases either (*a*) the person taking the shell-fish was the one person acquiring typhoid fever, or (*b*) when other persons in the same house had eaten shell-fish they had diarrhœa or other evidence of illness, although this did not develop into actual typhoid fever. When it is added that sewage-derived organisms were found in the interior of oysters derived from the same beds or ponds the evidence in this particular case becomes as strong as it can in the nature of things be in a medical inquiry concerned with circumstances of life necessarily complex in character.

VEXATIOUS QUARANTINES.

CONSUL NICOLINI, in his report on the trade of Bahia for the years 1893-95, has some interesting facts to communicate concerning the quarantine restrictions enforced by the Brazilian Government. He states with satisfaction that it has been decided to establish two quarantine stations for ships bound for the northern ports of the Republic, but the satisfaction is modified by the consideration that it will be twelve months before the one is ready, whilst works for the second are not yet commenced. The stations are to be respectively fifty miles south of Pernambuco and forty miles north of the port of Bahia. As an instance of the utter folly of the extremely vexatious delays which are brought about by the senseless quarantines, the Consul states that every ship carrying 400 third-class passengers, even though the vessel may have come from ports absolutely free from disease, is to be subjected to all the pains and penalties of quarantine, while a vessel of like character having 399 passengers on board will be allowed free pratique. Again, the ship *Monrovia*, bound from Rio to Maceio, fell in with the stranded vessel *Elmete* of London, lately sailed from Buenos Ayres, which

latter port had been declared infected. After standing by the ill-fated vessel for some days the *Monrovia*, having saved the crew and part of the cargo, proceeded to Bahia, but was there repulsed because of the port of departure of the wrecked boat, and was actually sent back a distance of 800 miles to the only quarantine station at Ilha Grande to perform the requisite period of detention. Such folly is surely enough to account for the action of the great steamship companies in steaming from the River Plate to Europe instead of calling off the Brazilian coast for cargo, the vessels taking only mails and passengers. Fortunately, diplomatic representations have recently secured some modification of the stringent rules, and the hope is expressed that the Brazilian Government will in time see its way clear to repeal the existing stupid regulations which are so detrimental to the trade and commerce of the country.

ANOTHER CLUB FIGHT IN PORTSMOUTH.

WE desire to draw the attention of the profession, and more especially those members of it who are seeking practices or appointments, to the dispute which is being waged by the local practitioners of Portsmouth against the absurd payment of ½*d.* per week at present existing for the juvenile branches of the Independent Order of Rechabites. It is obvious that medical practice cannot be carried on conscientiously at this figure, and the local surgeons have "struck" and have demanded the same medical subscriptions as for adults—viz., 4*s.* per annum. This surely is a moderate demand enough, but we wish to urge most strongly on any gentleman who may contemplate offering himself for one of these appointments that he would by so doing be guilty of a mean and dishonourable action against the practitioners of Portsmouth, besides injuring the whole profession throughout the country in assisting the clubs to maintain their low scale of fees. The profession, however, appears to be waking up to its interests, and if the efforts of local combinations are not nullified by outsiders real improvement may be looked for in the value and tenure of these appointments in every part of the kingdom. The Portsmouth medical men are confident of victory provided they can keep an outsider from accepting one of these appointments.

OUTBREAK OF SCARLET FEVER AT SOUTHAMPTON.

A REPORT of considerable gravity was made by the medical officer of health to the corporation of Southampton at their meeting on July 22nd. Mr. Harris reported that twenty-eight cases of scarlet fever—the highest number ever known in the town in that time—had been reported in one week. The West Quay (land) Hospital was full; many cases had assumed a more severe type, and they were absolutely without means of isolation. In about a fortnight's time, the medical officer mentioned, the schools would close for their summer holidays, and if they could find the means for isolation this would be a good time to check the extension of the disease. "In our existing condition," added Mr. Harris, "I regret to say the number of cases is gradually increasing and the disease is obtaining a firmer hold on the town." The emergency committee was specially called together by the Mayor and the medical officer to consider the urgent necessity for some additional provision of isolation. An offer had been received from the London and South-Western Railway Company of the steam-ship *Wolf* as a temporary sanatorium for small-pox cases, should the same be required, and in this case the existing port sanatorium would be available for convalescent scarlet fever cases—thirty-five patients. This plan is being carried into effect; the railway company have considerably reduced their terms to £10 per month for six months, the shipkeeper's wages, to be paid by the corporation in addition, being £1 4*s.* a week, and it is hoped by this means to check the epidemic. An isolation hospital is being provided meanwhile, for the Southampton corporation has a lively recollection of a very expensive small-pox epidemic which occurred some years ago from this very defect.

CONFERENCE OF HERBALISTS.

THE members of the National Association of Medical Herbalists have held their annual conference at Hull. The President said it was essential they should meet in conference "in order to bring about such a change in the medical laws of the country as would secure them freedom to practise as medical botanists. ..... Hitherto they had succeeded in preventing legislation of a serious nature being passed." The medical botanists are quite a hopeful body of men, but we fear their hope is in vain. The law with regard to unqualified practice is indeed lax, but there are signs of gradual changes which even a conference of herbalists will not be able to prevent—changes which sooner or later will protect the public from being treated by men who have no qualifications. The powers which the herbs possess should be placed in the hands of those who have been trained for years in the study of disease, and there is no doubt that future legislation will be to this effect.

THE BRITISH PRACTITIONER ON THE CONTINENT.

THE protective system as applied to commercial undertakings has long ceased to command respect in this country. It continues nevertheless to nourish in a less vigorous life the enterprises of most foreign states. So far, though we may disapprove, we cannot support this position by formal demands for reparation. When we find the same system applied with equal stringency, but under conditions as diverse as they are unreasonable, we had almost said inhumane, to the practice of medicine we feel that we have a right of remonstrance. The purely arbitrary rules by which practice is regulated in Switzerland, and will henceforth be governed in France also, are not such as will bear the most ordinary examination. Let the practitioner be never so well qualified his position is not thereby improved. It is nothing that he limits his attentions to persons of his own nationality. Qualifications which amply protect them, and which as fully meet every requirement of science all the world over, cannot be approved, according to this rule, unless they be stamped afresh with the sign and seal of a foreign university. Practically a course of education has to be twice undertaken for the ostensible purpose of protecting a population who desire no protection and need none besides that they already have. The glaring unfairness, nay, the wanton tyranny, implied in this course of action is too obvious for explanation. It is as if a foreigner resident in France or Switzerland conforming to every rule of trade recognised in either country or in any other, and paying all prescribed duties, were still debarred from trade on account of the mere difference of blood. How, we may ask, would it advance the interest of France if English trading houses dared not open a branch establishment in any one of her seaports, or of Switzerland if it were an European islet on the model of old China, in which the foreigner was contraband? It is time to have done with a form of professional exclusiveness which is not less puerile than it is injurious to the best interests of either country, and is, moreover, a constant cause of complaint among the large class of money-spending tourists. It were surely best for all concerned that this chronic sore, so long kept open by petty provocations, had begun to heal. There can be no real benefit any way from a policy of wanton

interference with legitimate practice which is producing, and is calculated to provoke, more and more a feeling of international resentment. The prevention of this very probable and equally deplorable result is a subject, we venture to think, not beneath the notice of diplomatic peace-makers.

POST-DIPHTHERITIC PARALYSIS AND ANTITOXIN.

A CASE of some interest is related by Dr. Mundorff in a recent number of the *New York Medical Record*. The patient was a tall, strong man, aged twenty years, who had suffered from an attack of diphtheria in December, 1895. He was not treated with antitoxin. A few weeks after his apparent convalescence his articulation became indistinct, there was regurgitation of fluids through his nose, and his voice assumed a nasal tone. On admission to hospital, in March, 1896, he was found to be anæmic and emaciated. His muscles were manifestly wasted, especially the pectorals, deltoids, and the biceps on each side. The pupils were dilated, vision was impaired, but there was no strabismus. The palate was paralysed, the knee-jerks were absent, and the weakness was great. He had an injection of antitoxin and began to improve gradually. A second injection was given, and the progress of the patient continued to be satisfactory until all the bad symptoms had disappeared. It is interesting to have the record of such a case, but we should hesitate to attach very much importance to the administration of antitoxin. Such cases in adults frequently follow the course of slow but steady improvement, which resulted in this patient, after the proper conditions of rest and good food are obtained, even when no drugs are used.

HOTELS AND QUACKERY.

THIS is an age of advertisement, and to advertisement of commercial products tastefully and tactfully employed no exception can be taken. But surely there are limits, to stray beyond which must be as injurious to the advertiser as it is irritating to those whom he hopes to attract. That the town-dweller when he takes a rare run into the country should find the green fields, the roadside farmhouses, the river banks, and the woods defaced by blatant, parti-coloured announcements of goods, useful or (more generally) useless, is an unhappy fact on which we have more than once commented, and one which has not entirely escaped the notice of our legislators, although, as far as we remember, the Bill which was introduced with a view to check the desecration of nature's beauty was advanced no further and did not arrive at the dignity of an Act. More's the pity. Rural advertisements, however, do not nowadays complete the tale of the travellers' woe. It is bad enough to pass *en route* through the shadow of a vale of advertisement; but the hapless voyager on reaching his destination—if that destination happens to be one of the present-day palaces which are called hotels—and being "elevated" (that is we fancy the correct Americanism) to his bedroom, finds himself surrounded by various packages containing toilet articles and quack remedies. Each package is duly secured by a gummed label, and to each is attached an announcement to the effect that if the package be removed or opened the price of it (which is given) will be charged to the visitor's account! This forcing of goods on customers is sufficiently objectionable and annoying in the case of such articles as face powder and perfumery for the bath, but—well, we need not waste adjectives on a much advertised quack preparation which the makers would endeavour to persuade a gullible public to be equally efficacious in conditions the causes of which are wide asunder as the poles. However, we cannot but wonder that men of such shrewd commercial instinct as are the managing directors of these excellent hotels should be so short-sighted. They may earn a penny or two by the sale of these nostrums, but "*per contra*" they may lose many a pound, for we do not think that the method referred to above will command the approval of medical practitioners. "Out, damned spot!" We commend to the directors Lady Macbeth's ejaculation.

THE STREET COLLECTING NUISANCE.

WE note in a contemporary the remarks of Mr. C. S. Loch, the secretary of the Charity Organisation Society, and of Mr. W. G. Bunn, secretary of the Hospital Saturday Fund, on the above subject. The former gentleman, it seems, has described street collecting as an evil system and a public nuisance that ought to be cut down root and branch, while the latter gentleman has said, "I think it would be possible to pass a short Act of Parliament giving the Home Office or the police the power to authorise street collections under certain conditions. For example, each institution which desired to collect might be compelled to satisfy the authorities of the *bonâ-fide* nature of the charity upon which it might be authorised to make a street collection on a particular day." Much might be said for this latter suggestion, but Mr. Bunn forgets that it is not only the question of the *bona fides* of the institution collecting which makes the system an evil one, but the fact that it is an intolerable nuisance to the general public. No doubt the principal object in street collection is to induce the working-classes to contribute to the cause of charity, but if this is so the arrangements might be carried out decently and in order. As it is collecting-boxes are rattled in the faces of pedestrians, even the public vehicles are boarded and passengers are solicited for donations while the ear-splitting rattling of the box continues. No account is taken of the fact that those solicited have already given to some previous applicant and the giver and non-giver are alike subjected to the same annoyance. With regard to the question of *bona fides* the secretary of the Children's Country Holiday Fund has recently written to the press warning the charitable that no persons have been authorised by him to collect money in the streets for this fund, and for ourselves we believe that in the best interests of charity it would be better if all societies would follow the lead of the Hospital Sunday Fund and deprecate this mode of collecting.

SCHOOLS AND INFECTIOUS DISEASE.

THE first step in the treatment of infectious disease is to admit its existence, for it is clear that without such an admission there can be no efficient isolation. Yet instances are daily reported which prove that candour in regard to contagion is a quality still dangerously uncommon. A legal action recently brought at the instance of a schoolmaster is of special interest in this connexion. It was undertaken to recover fees promised for one term of attendance, but afterwards withheld by a pupil's parents on the ground that a case of measles in the plaintiff's establishment had not been reported to them. Such a case could only have one issue, and it is needless to add that the plaintiff lost his case. We can sympathise with the difficulty in which a teacher may occasionally, as in this instance, be placed, but his duty to those who, suspecting nothing, placed their children with him is not thereby lessened. It is not, however, teachers only or even usually who are to blame in regard to this matter. It is, we fear, a practice far from uncommon for a parent himself to allow children who are tainted with infection to attend school. They may be themselves ill with whooping-cough, for example, or they may at home be associated with sick and infectious brothers or sisters. To some extent this evident mismanagement is due to ignorance, but in some degree also, we cannot doubt, to want of care. The subject is one with regard to which medical practitioners can hardly be too particular, since their authority with parents in such

cases is naturally second to none. Isolation, even in the comparatively trivial forms of infection, should be much more often a rule of practice than it appears to be. Not only so, but wherever it cannot be carried out in an efficient manner or wherever there is reason to suspect in the other apparently healthy children the advent of still incubating disease school attendance ought not to be allowed to any member of the family. Such obligations as devolve upon the parent must, of course, belong also to masters of boarding schools, who stand for the time *in loco parentis*.

BRITISH PHARMACEUTICAL CONFERENCE.

THE annual conference of the British Pharmaceutical Society was held this year at University College, Liverpool, and the presidential address was delivered by Mr. W. Martindale. Mr. Martindale alluded to the advances which pharmacology had made since the conference was last held at Liverpool twenty-five years ago, and enumerated many drugs which are now in everyday use which were then unknown. He then went on to speak of the relationship between pharmacists and medical practitioners and dwelt on the necessity of coöperation between them. So far we entirely agree with Mr. Martindale, but we cannot join in his condemnation of the Conjoint Board for rejecting pharmacology as a separate subject for examination. Reference was made to the manufacture of the various lymphs, which are principally prepared in Germany owing to the difficulties which are put in the way of investigators in England by the Vivisection Act. Mr. Martindale ended his interesting address by allusions to recently deceased eminent men whose works have had great influence on the progress of medicine, surgery, and pharmacy.

THE UNIVERSITY OF LONDON.

THE Bill for the reconstitution of the University of London, introduced by the Lord President of the Council, has passed its second reading without opposition in the House of Lords, and has also gone through the ordeal of the committee stage without any alteration. Ministers and ex-Ministers agreed that the only manner in which the reforms which are necessary to impose upon the existing University the duties of a Teaching University could be accomplished was to institute a statutory commission with wide powers. Lord Justice Davey has been invited to become the chairman of the commission and has consented to undertake the responsibilities of this honourable but onerous post. The other members of the commission have not yet been named, but we trust that a member of our profession familiar with the wants of the medical student and unconnected with any of the London examining bodies will be chosen. We would suggest the name of our latest speaker in the cause of reform in medical education, Mr. T. Pridgin Teale of Leeds, as that of one who would be in every way acceptable to the profession. The Bill has only a short time in which to pass through the Commons, but it could be passed by agreement between the two front benches, unless it be blocked by the opposition foreshadowed by Sir John Lubbock some few days ago.

IT is a pleasant duty which falls to our lot at the time that the British Medical Association is holding its sixty-fourth annual meeting at Carlisle to have to place on record a word of thanks to the authorities who are responsible for the conduct of the official journal of the Association. In the *British Medical Journal* of last week is published a review of our reprint of THE LANCET and the Hyderabad Commissions on Chloroform, and the work contained in our own clinical report receives kindly and appreciative notice. Our contemporary says: "The more valuable portion of the present volume is certainly THE LANCET Clinical Report. It is to be regretted in regard to such a wide collection and judicial survey of facts important to the whole profession that the returns asked for from the large London hospitals were not supplied. The provincial hospitals seem to have acted with greater public spirit than their sister metropolitan institutions. The evidence obtained is very convincing."

THE occasion of Professor Victor Horsley's retirement from the chair of Pathology at University College has been taken as an opportunity of presenting him with a piece of plate and an album in appreciation of the way in which he has advanced experimental pathology in this country. The album contains photographs of fifty-three of those who subscribed to the testimonial, together with a list of the experimental work they did either in conjunction with Professor Horsley or in the Brown Institution and Pathological Department of University College, London, during the time that he directed those laboratories.

THE Return of Registered Common Lodging-houses within the jurisdiction of the London County Council, which has just been presented to that body by their medical officer of health, gives particulars as to the names and residences of the keepers of the houses, situation, authorised number of lodgers, and date of inspection as to fitness.

THE Queen has graciously promised to contribute £50 towards the extension and improvement fund of Queen Charlotte's Lying-in Hospital, Marylebone.

ON Tuesday last the Duke and Duchess of Connaught laid the foundation-stone of a new hospital at Aldershot.

THE DENTAL HOSPITAL OF LONDON.—The annual conversazione and distribution of prizes in connexion with the Dental Hospital of London, Leicester-square, and the London School of Dental Surgery took place at the Galleries of the Royal Institute of Painters in Watercolours, Piccadilly, on July 24th, and was largely attended. The chair was taken at the distribution by Sir J. Crichton Browne, and Mr. Morton Smale, in a brief report on the work of the hospital during the past year, stated that its success continued. Sir J. Crichton Browne then presented the prizes, and at the close of the distribution delivered a short address to the students.

FOREIGN UNIVERSITY INTELLIGENCE.—*Geneva:* Dr. C. Poli has been recognised as *privat-docent* in Otology and Rhinology.—*Breslau:* Professor Uhthoff of Marburg has been appointed to the chair of Ophthalmology in succession to Dr. Förster, who has retired.—*Kiel:* Dr. Doehle, *privat-docent* in Pathological Anatomy, has been granted the title of Professor.—*Leipzig:* Dr. W. Schön has been promoted to an Extraordinary Professorship of Ophthalmology.—*Marburg:* Dr. Sandmeyer has been promoted to the Professorship of Physiology.—*New York (Polyclinic):* Dr. W. van Valzah has been appointed Professor of General Pathology. (*Bellevue Hospital Medical College*): Dr. Northrup has been appointed Professor of Pædiatrics, and Dr. G. D. Stewart Professor of Anatomy.—*Prague:* Dr. W. Kopfstein, Assistant to Professor Maydl, has been appointed Director and Chief Surgeon of the new General Hospital in Zungbunzlau.—*Würzburg:* Dr. F. Helfreich, Honorary Professor of Ophthalmology, has been appointed to the Extraordinary Professorship of the History of Medicine.—*Philadelphia (Polyclinic):* Dr. J. Daland has been appointed Professor of Diseases of the Chest and Dr. Riesman and Dr. Christian, Assistant Professors of Clinical Medicine with Therapeutics and the Surgery of the Genito-Urinary Organs respectively.—*Florence (Institute of Higher Studies):* Dr. Silvestrini has been appointed *privat-docent* in Medical Pathology and Dr. Agostini *privat-docent* in Psychiatry.—*Turieff (Dorpat):* Dr. N. K. Chermak has been appointed Extraordinary Professor of Comparative Anatomy, Embryology, and Histology.—*Tomsk:* Dr. M. G. Kurloff has been promoted to be Ordinary Professor of Special Pathology and Therapeutics

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XXX.

Effect of Wakley's Speech.—Release of the Dorchester Labourers.—The County Coroner's Bill.—Mr. Warburton's Parliamentary Committee.—Mr. Guthrie's Evidence before this Committee.—The Rejection of Mr. Cripps's Bill.—Wakley encouraged to persevere.

WAKLEY'S speech in behalf of the Dorchester labourers occupied two and a half hours in its delivery, and throughout the whole time he held the closest attention of the House. At no moment did his words provoke any manifestation of dissent, while loud support was frequent and forthcoming from either side of the chamber. When he resumed his seat the general applause was so hearty and unrestrained that he could not but feel that he had achieved a real oratorical triumph and in the most critical assembly in Europe.

The motion was seconded by Joseph Hume, who expressed the feelings of the House by his highly complimentary references to Wakley's opening. Lord John Russell supported the action of the Crown in refusing clemency, a view that was also taken by Sir Robert Peel, the leader of the Opposition, and Mr. Sergeant Wilde (afterwards Lord Chancellor Truro). Daniel O'Connell made a characteristic speech. Out of his numberless experiences of similar victories he foresaw that the approval of the House was entirely an academic recognition of Wakley's oratorical powers, and would have no practical result when it came to the telling of votes. He therefore urged Wakley, as a majority could not be hoped for, to withdraw his motion and get up petitions out of doors and thus bring the matter to the earnest attention of Government. Wakley in a brief reply said that he felt it his duty to press his motion "for an address to the King, praying that His Majesty would be pleased to grant a pardon to, and direct the recall of, the six labourers convicted at Dorchester in the spring of 1834" to a division. Hume was his co-teller and O'Connell's prophecy was verified, for only eighty-four members voted with Wakley, and three hundred and ten against.

It has not been without design that a verbatim transcript from Hansard of Wakley's first great effort in the House has been given. That such a speech loses much of its effectiveness when reduced to writing need not be insisted upon. It was essentially an impassioned appeal for speedy justice, and without the ring of the orator's voice, without the stir of his gestures and the play of his countenance such performances must lose actuality and be lacking in conviction. At the same time there can be read in his words enough to make us comprehend why the delivery of this speech settled at once and for ever his position in the House and established his reputation as a speaker. For two and a half hours he kept the attention of a willing House fixed upon the plight of those poor Dorsetshire labourers. When he commenced to speak the Tories desired to hear nothing of them, for the feelings of the landowners were utterly averse from the extension of mercy to any agitators against the low rate of agricultural wages; while the Liberals, his own party, were still more anxious that neither the House nor the country should spend time in discussing a miscarriage of justice which had occurred in their previous *régime*. Lord John Russell, again, was a new minister and ambitious of becoming, or rather remaining, a popular legislator, therefore he objected to Wakley's estimating the remission of the sentences already proposed by Government as inadequate, and demanding of the House a larger measure of clemency. In addition to these elements of hostility to the speaker on party grounds Wakley had another ordeal before him, and one of which he was perfectly well aware. He was not an unknown man in the House. His reputation as a speaker had preceded him, and the House was prepared with some little malice to hear the crude and robustious declamations of a demagogue and to class him with Henry Hunt and one or two other mob-orators as a noisy failure. Those who only knew of him as the man of many libel actions, and the leader of a revolt in the medical profession against properly constituted authority, had thoroughly made up their minds as to the fare that such a person would present to their palates. The case of the Dorsetshire labourers was an easy one for tub oratory, and to tub oratory they composed themselves to listen with what patience they might. What did they hear? Not the rush or thump of an unrestrained gesture and not a single ill-chosen word. A simple but learned summary of the legal aspects of the case of the Dorsetshire labourers, followed by a determined but perfectly restrained demand for justice and an eloquent but sober appeal for mercy. And all this couched in the clearest possible phraseology, informed with good taste, not without humour, tinged with passion, and most unmistakably from the heart. Wakley rose to make his first great speech a comparatively unknown man, with a record not calculated to win him the good graces of an assembly ever jealous of the manners of its members. He sat down with an undisputed claim to first-class oratorical powers, and with a recognised position in the House as a fit and proper person for its counsels.

Although Wakley lost his motion and in a very decisive manner, his efforts eventually prevailed. The agitation for the release of the Dorsetshire labourers was not allowed to flag because of the temporary check which it had received at St. Stephen's. Hume and Wakley, profiting by O'Connell's advice, solicited subscriptions from the people at large and were soon able to convince the Government that the popular sentiment was also the humane one. On March 19th, 1836, within nine months of his great speech, Wakley elicited from Lord John Russell a reply to a question in the House to the effect that all the six Dorsetshire labourers had received a free pardon and were to be instantly brought back to their native village at the Government's expense. This result was hailed by the extreme reform party as a signal triumph—a proof, as Wakley called it, of the sovereignty of the people. On April 25th, 1836, a public dinner was held under the presidency of Wakley at White Conduit House to celebrate the remission of the sentences. Nearly 500 persons attended, and both O'Connell and Wakley met with an enthusiastic reception.

The next occasion that Wakley played an important part in Parliament was during the debates upon Mr. Cripps's County Coroners' Bill. This Bill would have certainly passed the House as drafted by Mr. Cripps, the Member for Cirencester, had it not been for Wakley's earnest opposition. He had criticised many of its clauses in the columns of THE LANCET when it was first presented to Parliament two years before his election for Finsbury, and he may be said to have been waiting to spring on it should it ever emerge again from obscurity. It did peep forth and received the reward of its temerity, being rejected by a House much better instructed in its meaning and in medical politics as

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X., XI., XII., XIII., XIV., XV., XVI., XVII., XVIII., XIX., XX., XXI., XXII., XXIII., XXIV., XXV., XXVI., XXVII., XXVIII., and XXIX. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, March 7th, 14th, 21st, and 28th, April 4th, 11th, 18th, and 25th, May 2nd, 16th, 23rd, 30th, June 6th, 13th, 20th, 27th, July 4th, 11th, 18th, and 25th respectively.

a whole than the assembly to whose notice it had been originally introduced. This enlightenment was due in some measure directly to Wakley's speeches and writings, but in a larger degree to the report of Mr. Warburton's Parliamentary Committee on Medical Education, which had been presented to the House in the interval between the introduction of Mr. Cripps's measure and the postponed discussion thereon.

Mr. Warburton's Committee was the outcome of a joint endeavour on the part of himself and Wakley to find a constitutional remedy for the many undoubted abuses that were rife in the medical profession. At the date that Warburton moved for the appointment of such a Committee of Inquiry—viz., February, 1834—Wakley was not in the House, but without his aid the unanimous agreement of Parliament would not have been obtained for the departure. It was Wakley's ever-recurring revelations of the extraordinary anomalies present in the system of medical education that, being persisted in for over a decade and being uncontroverted and practically uncontrovertible, finally bore splendid fruit. In fact, Mr. Warburton's Committee was the result of Wakley's successful agitation. The dull, feeble exclusiveness of the Royal College of Physicians of London, the tyranny and ineptitude of the Royal College of Surgeons, the pettifogging malice of the Society of Apothecaries,—these were his weekly themes, and not bad samples of his weekly phraseology; and so pungently did he treat them and with such perfect disregard for the private position or importance of the figure-heads in the various corporations that every one read the articles. They possessed the piquancy of their unstudied insolence and compelled attention from those quite innocent of any desire to see justice done to the rank and file of the medical profession. So that when Mr. Warburton asked the House to appoint the Committee he appealed to an alert assembly wherein there was already a general feeling that some such inquiry ought to be made. So he obtained what he wanted immediately. In a second way Wakley was largely responsible for Mr. Warburton's Committee, inasmuch as it was he who showed Mr. Warburton how to secure the evidence and what evidence to look for. Wakley had dissected the charters of all three of the London corporations, and he knew what each body could do by law and what each body could not do by law, as well as what each body had taken upon itself to do by custom. He knew where the law had been evaded, where it had been broken, and where it had been stretched, and in all these practices he knew when the result bore hardly upon the student and the workings of medical education. All this knowledge he placed unreservedly at Mr. Warburton's disposal, and its possession enabled that gentleman to act with confidence and to steer his Committee with discretion.

On Tuesday, Feb. 11th, 1834, Mr. Warburton moved for his Parliamentary Committee of Inquiry into the state of the medical profession. Mr. Hume supported him, holding up to ridicule those very anomalies of the Apothecaries Act that were detailed in Chapter XXVI., as affording proof of the necessity for someone to be present in Parliament to interpret medical matters to the Legislature. The motion was agreed to without a division and an exceptionally strong Committee was appointed. Mr. Warburton was chairman, and was supported by, among others, Lord Howick (the late Earl Grey, eldest son of Earl Grey, the Prime Minister at that date and the introducer of the great Reform Bill), Mr. J. Abercromby (elected Speaker of the House of Commons in the following year), Mr. Halford (son of Sir Henry Halford, the all-powerful President of the Royal College of Physicians), Daniel O'Connell, Mr. Spring Rice (afterwards Chancellor of the Exchequer and raised to the peerage as Lord Monteagle), Mr. Hume, Lord Oxmantown (afterwards Earl of Rosse, F.R.S., of telescope fame), and Sir Robert Peel.

The Committee was appointed to take evidence on the following important and diverse subjects:—Treatment of parochial poor; farming of sick poor; treatment in institutions supported by voluntary, life, and annual subscriptions; mode of appointing officers of such; appointments to gaols, asylums, &c.; regulations of private lunatic asylums; the proper qualifications for masters in lunacy; the state of medical practice generally and its supposed effect on the public health; the practices of unqualified persons and quacks as regards public health and reputation of the profession; the public sale of secret remedies; the revenues of endowed institutions and the numbers of patients treated in them and the state of those patients; the mode of appointment of army and navy medical officers; the number of students attached to chartered hospitals and fees paid by them; the qualifications and legal rights of Fellows and Licentiates of the Royal College of Physicians, of Members of the Royal College of Surgeons and of Licentiates of the Apothecaries' Company; the fees charged at the foregoing institutions and the manner in which such funds are appropriated; the system of medical apprenticeship; the status of chemists in regard to dispensing; the actual amount of wealth in possession of each of the chartered medical institutions; and the appointment of medical professors and courts of examiners at both the corporations and the universities.

The following were among some of the witnesses called:—Mr. Cæsar Hawkins, Sir Henry Halford, Sir George Tuthill, Dr. Hume, Dr. Copland, Dr. Elliotson, Dr. Farre, Dr. Birkbeck, Dr. James Johnson, Mr. Cooper and Mr. Morson (chemists), Mr. Guthrie, Sir Astley Cooper, Mr. Charles Bell, Mr. Wardrop, Mr. Travers, Mr. Brodie, Mr. Grainger, Mr. Carpue, Mr. Lawrence, Sir A. Carlisle, Mr. Green, and Dr. Somerville. The Apothecaries Company sent six special witnesses, and most of the private teachers as well as Carpue and Grainger had an opportunity of addressing the Committee. Professor Macartney came from Dublin, Mr. Hey and Mr. Cross represented provincial surgery worthily; Professors Christison, Allison, Abercromby, Poole, Thomson, and Maclagan were present from Edinburgh. Glasgow, Aberdeen, and St. Andrews also sent witnesses.

All the evidence of these gentlemen was printed by Wakley in THE LANCET and copiously annotated so that both the House and the medical profession had a chance of learning the real need that existed for reform, not only from persons interested in altering the existent and corrupt state of affairs but out of the mouths of those very heads of the profession whose rule had been so bitterly attacked by THE LANCET and whose rejoinder had been an invariable and stiff-necked assertion that things were very well as they were and that the disaffected persons were either malicious malcontents striving to be important or their silly hoodwinked followers. Wakley for ten years had made certain statements in THE LANCET. Now was the hour of his triumph, for witness after witness willingly or unwillingly confirmed these statements and made it clear to the country that medical reform was really required upon the very lines indicated by the journal which was by solemn agreement on the part of the London surgeons and teachers condemned as hopelessly wrong-headed and prejudiced. The country during the sitting of this Committee was no longer listening to Wakley, but to all sorts and conditions of expert testimony to the accuracy of his words.

Mr. Guthrie, for example, speaking in behalf of the College of Surgeons, of which body he had been elected President in 1833, gave it in evidence that he considered that the process by which the twenty existing members of the Council, or governing body, elected the twenty-first man to their body was an absurd plan, and that any other would be

most acceptable. Immediately afterwards he added that no other plan would be as satisfactory. He thought that surgeons should not dispense their medicines or practise midwifery, as anyone who gave time to such trivialities would have none left for the acquisition of the principles of pure surgery, but he admitted that if only the non-dispensers could be chosen on the Council the power would be absolutely in the hands of 200 pure surgeons to govern 8000 persons presumably as well educated as themselves—viz., the body of Members at large. He defended the system by which the ten senior men of the twenty-one Councillors were examiners, in spite of the fact that Councillors were chosen for life and that some of the senior men would therefore presumably be past their work. And he spoke well of the high rate of fees exacted from the London student. His evidence was printed at length in THE LANCET, much to his disgust, and proved in the clearest possible way that Wakley had not been exaggerating during the past ten years when he described the Council of the College as "a self-perpetuating junto" and its educational scheme as useless, giving as his reasons firstly, that pharmacy and midwifery were not included in it, and, secondly, that the examiners were not fit and proper persons. If these facts had been elicited before the Committee from Scotch or Irish teachers jealous of certain of the advantages enjoyed by the London corporations, or if they had been insinuated by Grainger or Carpue, sore at the greedy opposition offered by the College professors to all private tutorial enterprise, or if they had been advanced by Wakley himself—a known foe to the College of Surgeons—the public might have looked with suspicion on the evidence as tainted. But Guthrie was speaking for the College—as the President of the College in fact—in favour of keeping things as they were, and he satisfactorily convinced the Committee of the urgent need of reform.

It was in a House in full possession of such evidence as this taken before a Parliamentary Committee that Wakley criticised Mr. Cripps's County Coroners Bill from a medical aspect. The House was prepared to believe that in matters of medical reform the honourable member knew what he was talking about. He was listened to with attention and was able to secure the approval of the members for several amendments, chief among which was that the medical witness should be treated as an expert and should be paid at inquests one guinea for his attendance and another for making a post-mortem examination if directed to do so by the Court.

Mr. Cripps's Bill was afterwards rejected as a whole, but Wakley's prompt and successful employment of the first opportunity that had presented itself to him to watch over the interests of the profession in Parliament did not go without recognition at the time, while it led to practical results in the immediate future. He was publicly thanked by several medical associations. He was also begged to renew his endeavours in the next session of Parliament to obtain adequate remuneration for medical witnesses in the coroners' courts.

(To be continued.)

METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund was held on Tuesday, July 28th, in the Saloon of the Mansion House, when the following annual general report of the Committee of Distribution was presented:—

"Your committee have the honour to recommend awards to 180 of the institutions enumerated in the appendix to this report, being an increase of seventy-five since the first awards were made in 1873. The total amount available for distribution, after allowing for liabilities and the usual current expenses, is £44,029. Of this total £41,829 is now recommended to 125 hospitals and fifty-five dispensaries. Five per cent. of the total collected—viz., about £2200—is set apart to purchase surgical appliances (in obedience to Law XII.) in monthly proportions during the ensuing year. Your committee recommend that all payments to the Fund after this date be carried to the credit of next year's Fund. In compliance with an order of the Council and for the special use of its members tables of statistics have been prepared as usual, showing an analysis of the number of beds in hospitals, the cost of patients both at hospitals and dispensaries, the proportionate expense of management, as well as other valuable information, and copies are sent to every member of the Council. Your committee have this year had occasion to question the administration of nineteen institutions. Each of these has been given the opportunity of sending a deputation in conference. Your committee are, however, glad to report that in most cases the objections raised were frequently explained satisfactorily. There are now very few institutions which do not publish their accounts on the uniform system agreed upon. One special hospital, having no present need, gets no award. One convalescent home, where the charge for maintenance of patients was deemed excessive, has no award recommended. An institution which has been classed as a dispensary, and from which your committee requested the production of the minute-book, declined to produce the same, and your committee are very doubtful of the existence of any such book. The result of all their interviews will, your committee hope, lead to improvement in the future. Awards are therefore recommended to 162 institutions on full bases, to sixteen on slightly reduced bases. The remaining three applicants have no awards recommended."

Sir SYDNEY WATERLOW, who, in the absence of the Lord Mayor, occupied the chair, said he had great pleasure in moving for the fourth time that the report of the Distribution Committee be approved and that the several awards recommended be paid as soon as possible. The amount collected up to the present time was £44,683 16*s.* 0*d.*, and although this sum was not as large as that collected last year he thought it was on the whole satisfactory considering the fact that during the last three months special efforts had been made by one of London's old hospitals to raise an endowment fund. Sir Savile Crossley had contributed this year for the sixth time £1000, Mr. Ludwig Mond for the ninth time a donation of £100, and Reid's Brewery for the fourteenth time a donation of £200. Special thanks were also due to Canon Fleming, who had this year beaten his own record.

Alderman COTTON asked whether St. Thomas's Hospital had been taken into consideration when making the awards.

Sir SYDNEY WATERLOW said there had been some correspondence with regard to the matter, and he believed the reason the hospital was excluded from the awards was because the authorities objected to prepare their accounts on the uniform system.

Dr. GLOVER said before the resolution was put he had a complaint to make. He explained that the Distribution Committee had been ordered by a resolution of Council to make some inquiries respecting the growing proportions of the out-patient departments of hospitals and the subject had been treated with absolute neglect and ignored in the minutes. There had been a meeting of the Distribution Committee with regard to the matter, and he (Dr. Glover) left that meeting with the distinct understanding that the Distribution Committee would cause a summary of the facts elicited to be published. It was never meant that our great hospitals should become huge dispensaries. As the Distribution Committee had ignored the matter, with the help of a business friend he had collected some figures which showed that eighty-two of the institutions helped by the Fund spent on their out-patient departments £94,604, and that each out-patient cost on an average 3*s.* 5½*d.* Special hospitals spent more on their out-patients, the largest sum being 30*s.*, the cost of an out-patient at the Cancer Hospital. He was of opinion that if the Committee had faced the subject the collection would have been increased, and the public would be more inclined to put money into the Council's hands if they were not so timid in telling hospitals what they should do. Secondly, a wholesome and reasonable reduction in the out-patients' department would save an expenditure of £30,000 or £40,000 a-year.

Mr. BURDETT pointed out that the Council was only a collecting body and that the proper persons to deal with the matter were the members of the medical profession themselves.

Sir SYDNEY WATERLOW said it seemed to the Committee that there was so much diversity of opinion on the matter that they could not see their way to recommend any course to the Council.

Captain PALLISER having seconded the motion that the report be adopted, the resolution was put and carried.

The following resolutions were then agreed to and the usual courtesies to the chairman terminated the proceedings.

"That the cordial thanks of the Council be and are hereby given to Sir Sydney H. Waterlow, Bart. (chairman), and to the other members of the Committee of Distribution, for the considerable care and attention

bestowed in the preparation of the awards they have recommended and for the very efficient report of their proceedings."

"That the thanks of the Council be and are hereby given to the editors of newspapers who have pleaded the needs of hospitals and advocated the cause of this Fund with a view to increasing this year's collection.

"That the cordial thanks of the Council are now given to the Right Honourable Sir Walter Wilkin, Bart., Lord Mayor, who, as president and treasurer, has devoted his valuable time and made special efforts to promote the growth of the Fund."

THE INTERNATIONAL PERIODICAL CONGRESS OF GYNÆCOLOGY AND OBSTETRICS.

THE second session of the International Congress of Gynæcology and Obstetrics will be held in Geneva under the distinguished patronage of the Federal Council of the Swiss Confederation and of the State Council of the Canton of Geneva. The meetings will be held in the great hall of the university, and Professor Auguste Reverdin will preside. The following is the programme:—

Monday, Aug. 31st.—At 3 P.M. a reunion of the permanent international committee and original members of the Congress will be held. At 9 P.M. the members of the Congress will be entertained at a reception at the Palais Eynard by the State Council and by the City Council of Geneva.

Tuesday, Sept. 1st.—The Congress will be opened by the President of the Committee of Organisation (Dr. Reverdin) at 9 A.M. The President of the Swiss Confederation and the chief of the Department of Public Instruction will be present and will speak. At three o'clock in the afternoon there will be a discussion on the Treatment of Pelvic Suppurations. The following have been selected by the Committee of Organisation to open the debate:—Professor Sänger (Leipzig), Dr. Howard Kelly (Baltimore), and Dr. Bouilly (Paris). Among those who have signified their intention of taking part in the discussion are Professor A. Martin (Berlin), Mr. Lawson Tait (Birmingham), Dr. Laroyenne (Lyons), and several others.

Wednesday, Sept. 2nd.—In the forenoon two subjects will be discussed—viz., The Surgical Treatment of Backward Displacements of the Uterus, to be opened by Dr. Küstner (Breslau), Dr. Polk (New York), and Professor Pozzi (Paris); and The Best Mode of Closing the Abdomen, to be introduced by Dr. Granville Bantock (London) and Dr. La Torre (Rome). In the afternoon various miscellaneous communications will be considered.

Thursday, Sept. 3rd, will be entirely devoted to an excursion on the Lake of Geneva, dining at Vevay, and with an excursion to Montreux-Chillon.

Friday, Sept. 4th.—In the morning the subject will be The Relative Frequency and most Common Forms of Pelvic Contractions in different Races, Groups of Countries, or Continents, and the following will be the reporters: Dr. Fancourt Barnes (London), Dr. Dohrn (Königsberg), Dr. Fochier (Lyons), Dr. Kufferath (Brussels), Professor Lusk (New York), Professor Rein (St. Petersburg), Dr. Pawlick (Prague), Dr. Pestalozza (Pavia), and Professor Treub (Leyden). Dr. Berry Hart (Edinburgh) will also speak. The afternoon will be taken up with various papers not yet announced.

Saturday, Sept. 5th.—The subject at the morning session will be the Treatment of Eclampsia, to be introduced by Dr. Charles (Brussels), Professor Charpentier (Paris), Professor Halbertsma (Utrecht), Professor Veit (Berlin), Dr. Mangiagalli (Milan), Professor Parvin (Philadelphia), and Professor Byers (Belfast). Professor Tarnier of Paris will also speak in the discussion. At five o'clock there will be the closing meeting and in the evening a public banquet.

Those who have been appointed by the organisation committee to open the various discussions will be allowed ten minutes each, while others taking part in the debates will be allowed five minutes. Life members pay a subscription of £12, which absolves them from the payment of any future payment, while those who are only inscribed for one session pay 24*s*. This entitles them to membership of the Congress as well as a copy of the Transactions of the meeting. There will also be an exhibition of instruments used in midwifery and gynæcology. Professor Cordes, 12, Rue Bellot, Geneva, and Dr. A. Bétrix, 33, Rue du Rhône, Geneva, are the secretaries-general—the former for obstetrics, the latter for gynæcology—with whom those who propose to take part in the Congress should communicate. The special secretary for England is Mr. J. H. Targett, 6, St. Thomas's-street, London, S.E.

CHOLERA IN EGYPT AND THE SOUDAN.

PUBLIC attention is focussed at the present time upon the outbreak of cholera in the Soudan and the effect which it may have upon the campaign. For the moment everything connected with the merely military aspects of the expedition is set aside; the presence of cholera has temporarily excluded the Khalifa's forces from consideration. There cannot be any doubt that the epidemic in Lower Egypt and the Soudan has been on an extensive scale, whether we regard it in relation to the numbers attacked or the space the epidemic has covered. Since the beginning of this Egyptian epidemic there have been over 14,000 cases reported and nearly 12,000 deaths; and in a country like Egypt, where the system of registration in rural districts especially cannot be relied upon, it is very probable that the actual number of attacks and deaths exceed the number officially returned.

We have to announce with great regret the deaths of two more British officers serving with the Egyptian troops of the Nile expedition—viz., those of Surgeon-Captain Trask and Captain Fenwick, both of whom had distinguished themselves by their energy and zeal and their brave devotion to duty. The almost simultaneous loss of these two officers, who perished within a few hours of their being attacked with cholera, naturally cast quite a gloom over the force. Some other cases of cholera had also occurred at Kosheh and the camp was shifted in consequence. Captain Fenwick was a very gallant soldier and an immense favourite in the Egyptian Army, and Surgeon-Captain Trask had only shortly before his attack arrived from Korosko, where he had been doing excellent work. This officer had served with much distinction in the action at Ferket, where he had exhibited great bravery and coolness in attending to the wounded under a heavy fire. We are proud to say that the medical service has greatly distinguished itself in the present expedition by its devoted zeal and untiring exertions in attending to the sick and in devising measures for limiting the spread of the disease. It is very gratifying to us as medical journalists to add that the labours of the medical officers and the hopeful, plucky spirit they have always shown under most trying circumstances have been universally recognised. Only those who have had personal experience of cholera camps can form any adequate idea of the calls that are made upon a man's fortitude and of the mental and physical strain which have to be undergone under such depressing circumstances. The heat in the Soudan has of late also been very great, the temperature in the shade having been over 120° F. In addition to the attacks of cholera at Kosheh there have likewise been cases at Suarda, Gemai, and Wady Halfa. The disease in Lower Egypt is, however, slowly subsiding, and the latest accounts from the Soudan are also more favourable. The British troops forming the army of occupation have almost entirely escaped cholera, but the death of a man of the Royal Artillery at Alexandria has to be recorded. In addition to cholera there have been some cases of enteric fever in the field force and others returned as enteritis. The Staffordshire Regiment at Wady Halfa and the European part of the force across the frontier have, however, been relatively free from cholera as compared with the Egyptian army and the civilians accompanying it. The water-supply for the troops has been the object of vigilant attention on the part of the medical officers. The Nile has risen greatly, and its waters, derived from pure sources and moving rapidly, should, with ordinary precautions and care, afford an abundant supply of wholesome pleasant drinking water. The course of the cholera that has appeared along the banks of the Nile has, as we have said, and as is the case with cholera in India, where an epidemic commencing in the plains proceeds upwards to the north-west, the Punjab, and to the Himalayas, contrary to the course of the great Indian rivers, been moving upwards and against the course of the river. The medical officers have among other things had recourse to the shifting of camps and change of site as one of the safeguards against cholera, based presumably upon Indian experience. Great

progress has been made with the construction of the railway, and the supply of stores and the arrangements for an onward movement must have pretty well reached their completion. But cholera has, in the meantime, proved a more serious enemy and cause of embarrassment to the expedition than the army of the Khalifa.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6144 births and 5167 deaths were registered during the week ending July 25th. The annual rate of mortality in these towns, which had increased in the three preceding weeks, from 16·9 to 21·4 per 1000, further rose last week to 24·8. In London the rate was 25·3 per 1000, while it averaged 24·5 in the thirty-two provincial towns. The lowest rates in these towns were 11·6 in Swansea, 13·0 in Brighton, 15·3 Blackburn, and 16·0 in Halifax; the highest rates were 29·2 in Portsmouth, 30·7 in Wolverhampton, 31·7 in West Ham and in Liverpool, and 34·4 in Birmingham. The 5167 deaths included 1593 which were referred to the principal zymotic diseases, against 845 and 1152 in the two preceding weeks; of these, 1177 resulted from diarrhœa, 155 from measles, 115 from whooping-cough, 74 from diphtheria, 40 from scarlet fever, 32 from "fever" (principally enteric), and not one from small-pox. The lowest death rates for these diseases were recorded in Halifax, Swansea, Blackburn, and Bristol; and the highest rates in West Ham, Sheffield, Hull, Birmingham, and Leicester. The greatest mortality from measles occurred in Portsmouth, Norwich, Derby, Oldham, Hull, and Gateshead; from scarlet fever in Plymouth; from whooping-cough in Gateshead, Hull, Bolton, and Preston; and from diarrhœa in West Ham, Cardiff, Birmingham, Leicester, Wolverhampton, Liverpool, and Sheffield. The mortality from "fever" showed no marked excess in any of the large towns. The 74 deaths from diphtheria included 50 in London, 8 in Birmingham, 3 in West Ham, and 3 in Liverpool. There were 37 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 25th, against 39, 47, and 40 at the end of the three preceding weeks; 6 new cases were admitted during the week, against 12, 11, and 0 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3207, against 2994, 3088, and 3161 on the three preceding Saturdays; 321 new cases were admitted during the week, against 359, 319, and 320 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 154 and 165 in the two preceding weeks, declined again to 153 last week, and were 26 below the average. The causes of 69, or 1·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Nottingham, Bradford, Leeds, Hull, and in ten other smaller towns; the largest proportions of uncertified deaths were recorded in West Ham, Birmingham, Liverpool, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·8 and 18·1 per 1000 in the two preceding weeks rose again to 18·3 during the week ending July 25th, but was as much as 6·5 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·9 in Aberdeen and 15·4 in Edinburgh, Leith, and Perth, to 20·0 in Paisley and 20·7 in Glasgow. The 534 deaths in these towns included 57 which were referred to diarrhœa, 25 to measles, 18 to whooping-cough, 4 to diphtheria, 3 to scarlet-fever, and 3 to "fever." In all, 110 deaths resulted from these principal zymotic diseases, against 91 and 121 in the two preceding weeks. These 110 deaths were equal to an annual rate of 3·8 per 1000, which was 3·9 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had been 25 and 37 in the two preceding weeks, further rose to 57 last week, of which 28 occurred in Glasgow, 6 in Edinburgh, 5 in Dundee, and 5 in Greenock. The deaths referred to measles, which had been 39 in each of the two preceding weeks, declined to 25 last week, and included 22 in Glasgow. The 18 fatal cases of whooping-cough showed a decline of 6 from the number in the preceding week, and included 12 in Glasgow and 3 in Paisley. The 4 deaths from diphtheria exceeded by 2 the number in the preceding week, and included 2 in Edinburgh. The fatal cases of scarlet fever, which had increased in the four preceding weeks from 3 to 10, declined again to 3 last week, of which 2 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 88 and 66 in the two preceding weeks, further declined to 61 last week, but slightly exceeded the number in the corresponding week of last year. The causes of 30, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 25·4 and 26·7 per 1000 in the two preceding weeks, declined again to 23·7 during the week ending July 25th. During the past four weeks of the current quarter the death-rate in the city has averaged 25·4 per 1000, the rate during the same period being 21·7 in London and 16·1 in Edinburgh. The 159 deaths registered in Dublin during the week under notice showed a decline of 20 from the number in the preceding week, and included 43 which were referred to the principal zymotic diseases, against 29 and 34 in the two preceding weeks; of these, 39 resulted from diarrhœa, 3 from whooping-cough, 1 from scarlet fever, but not one either from small-pox, measles, diphtheria, or "fever." These 43 deaths were equal to an annual rate of 6·4 per 1000, the zymotic death-rate during the same period being 8·1 in London and 2·1 in Edinburgh. The fatal cases of diarrhœa, which had increased in the five preceding weeks from 6 to 24, further rose to 39 last week. The deaths referred to whooping-cough, which had been 5, 7, and 4 in the three preceding weeks, further declined to 3 last week. The mortality from scarlet fever also showed a decline from that recorded in the preceding week. The 159 deaths in Dublin last week included 44 of infants under one year of age, and 29 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded those recorded in the preceding week. Seven inquest cases and 5 deaths from violence were registered; and 50, or nearly a third, of the deaths occurred in public institutions. The causes of 11, or nearly 7 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-MAJOR HENRY KINGSTON ALLPORT has been posted to the Cork District for duty on his return from Ceylon. Surgeon-Captain J. F. Bateson and Surgeon-Captain T. Browning have embarked for service in South Africa.

Grenadier Guards: Surgeon-Captain Edward N. Sheldrake has been appointed Surgeon-Major, vice W. A. Carte, M.D., retired.

The undermentioned Surgeon-Lieutenant-Colonels have been appointed Brigade-Surgeon-Lieutenant-Colonels: William Donovan, vice H. Stannard, retired; Richard H. Quill, vice H. J. O'Brien, retired; and M. Blennerhassett, C.M.G., vice J. Barry, retired.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Surgeon-Captain S. H. Henderson (Bengal) are placed permanently at the disposal of the Government of the North-Western Provinces and Oudh. The services of Surgeon-Captain G. F. W. Ewens (Bengal), Medical Officer, 16th Bengal Infantry, are placed temporarily at the disposal of the Government of the Punjab. The services of Surgeon-Captain C. E. L. Gilbert (Bengal), Medical Officer, 30th Bengal Infantry, are replaced at the disposal of the Military Department. Surgeon-Major-General Warren, A.M.S., on vacating the appointment of Principal Medical Officer, Bombay Command, is permitted to return to England, and will accordingly be struck off the strength of the Bombay Command. Surgeon-Colonel Atkins, A.M.S., Principal Medical Officer, Poona District,

takes over the duties of the Principal Medical Officer, Bombay Command, in addition to his own duties, from Surgeon-Major-General Warren. Surgeon-Captain J. L. T. Jones and Surgeon-Lieutenant R. F. Standage have respectively delivered over and received charge of the Aden Prison.

NAVAL MEDICAL SERVICE.

Staff-Surgeon Christopher Pearson, M.A., M.D., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

VOLUNTEER CORPS.

The following appointments have been announced:—*Engineer: Fortress and Railway Forces, Royal Engineers:* 1st Sussex: Surgeon-Lieutenant W. P. Morgan, M.B., to be Surgeon-Captain. *Rifle:* 1st Volunteer Battalion the Royal Warwickshire Regiment: Gerald Wheatley Adams, gent., to be Surgeon-Lieutenant. 1st Tower Hamlets: John Francis Woods, M.D., to be Surgeon-Lieutenant.

DEATHS IN THE SERVICES.

Surgeon-Captain John Ernest Trask, who died at Kosheh on July 25th, aged thirty-three years, from cholera, was the second son of the late Mr. James Trask of Bath, formerly one of the auditors of the Local Government Board. He was educated at the Bristol Medical School and there obtained the gold medal in medicine and surgery and also the Crosby Leonard prize in surgery. In 1836 he took the qualifications of L.R.C.P. Lond. and M.R.C.S. Eng., and after holding the appointments of house surgeon at the Bristol Eye Hospital and the Royal United Hospital, Bath, entered the Army Medical Department, and after some home service was ordered to India, where he was appointed on the staff of Lord Harris. Surgeon-Captain Trask arrived home on furlough last year and volunteered for the Soudan at the commencement of the present campaign. During the recent action at Firket he behaved with great coolness and bravery whilst attending the wounded under a heavy fire. The deceased officer arrived at Kosheh from Koroski on the morning of the 25th ult., where he had for some weeks past been actively engaged with the cholera epidemic. On his arrival he complained of fatigue and was shortly after attacked with cholera and died in the course of the afternoon. Surgeon-Captain Trask was a keen cricketer and had on many occasions been included in the Somerset county team. He was extremely popular both in Bristol and in the army, and much sympathy will be felt for his mother and relatives in their sad loss.

THE SOUTH WALES VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

On Saturday, the 25th ult., the regimental bearer companies of the 1st and 3rd Volunteer Battalions South Wales Borderers, comprising two sections, paraded in review order in front of the Town Hall, Crickhowell, for their annual parade. The bearer company having been formed up by Surgeon-Captain Davies (Ebbw Vale) was, headed by the band, marched to the parade-ground under the command of Surgeon-Lieutenant-Colonel Hill, V.D. On arrival the company was drawn up in open order and inspected by the commanding officer, who expressed himself as being well pleased with the general smart appearance of the men and their equipment. The company were put through the stretcher-bearer drill in close and extended order with closed and prepared stretchers, advancing by detachments in succession from the right, changing the direction to the right and left, moving to a flank, and resuming the march to the front or rear. Hand-seat drill, or the formation of hand-seats for the transport of the wounded soldier for short distances, was also gone through.

A MILITARY BOOT COMPETITION.

The *Admiralty and Horse Guards Gazette* announces a competition for the best military boot, and offers a gold medal for the one that fulfils to the greatest extent the conditions that must necessarily be required of a service boot. "Material, shape, and make will be primary considerations, but it must be shown to our satisfaction that the pattern sent in can be reproduced in large quantities with absolute certainty on the machine employed by the competing firm. ..... The award will be made the second week in September, and all samples sent in to us will be open to inspection by officers and others interested in the matter on the production of their cards at our offices after Aug. 31st, between the hours of 3 and 6 P.M."

Correspondence.

"Audi alteram partem."

"OPTIC NEURITIS AND CHOKED DISC."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of July 25th I observed an annotation on this subject, in which you say: "It is hardly to be expected that in any case of optic neuritis in which the function of the optic nerve has been interfered with to such a degree as to cause complete blindness, any operative measure will lead to a restoration of vision." Will you permit me to remind you that in 1883, when I first pointed out the way in which incision of the optic nerve sheath behind the eye might be performed under the guidance of vision, I operated in St. George's Hospital on a woman seventy years of age, who had been described as "blind" for ten days, and in whom for at least three days there had been no perception of light? In her case vision was so far restored that she was able to read an ordinary book or newspaper with comfort. I need not enter into details, as these were fully published in the proceedings of the Medical Society of London; but I should like to express my conviction that timely incision of the optic nerve sheath would save sight in many instances in which it is now permitted to be lost. I have performed what I think I am entitled to call my operation on five persons, on four of them with marked benefit, but in the fifth, on account of the depth of the orbit and other difficulties, I was not successful in bringing the nerve into view and am not certain that the sheath was effectually divided. No effect, at any rate, was noticeable. These cases, however, are like glaucoma to this extent, that if the right time for action is suffered to pass away it can never afterwards be recalled. I believe that the sheath should be divided in every case of swollen optic disc in which sight is suffering, and in which prompt improvement is not produced by mercurial or other treatment. The division cannot fail to relieve compression.

I am, Sirs, yours faithfully,

Harley-street, July 26th, 1896. R. BRUDENELL CARTER.

THE INTERNATIONAL CONGRESS OF DERMATOLOGY.

To the Editors of THE LANCET.

SIRS,—At the request of some of my colleagues in charge of the arrangements for the International Congress of Dermatology to be held in London next week I have to ask you to allow me to say a few words. We are, in the first place, most anxious that this Congress should not be regarded as an affair in which the non-specialist practitioner will have no part. Dermatology has taken its place as one of the most interesting and instructive departments of medical science. We hope, therefore, that none will be prevented by any considerations such as those hinted at from joining us and availing himself of the opportunities for gaining knowledge which will be afforded. There will be on every day of the Congress (Aug. 5th, 6th, and 7th) two demonstrations (at 9 and at 2) of living patients, and it is expected that several hundreds of such will be produced and that opportunities will thus be afforded of eliciting the diagnosis and comments of some of the most distinguished authorities. These occasions cannot fail to be most instructive to all, and, let me add, it is probable that on the scale now attempted they will never occur again. A subscription of one guinea will entitle to attendance at all these demonstrations as well as at the meetings of the Congress, and also to a volume of Transactions which will be published when the Congress is over. The subscription should be sent to the secretary-general, Dr. Pringle, 23, Lower Seymour-street, or direct to the treasurer, Mr. Malcolm Morris, 8, Harley-street.

Next I have to ask attention to the fact that the demonstrations above referred to will offer excellect opportunities for obtaining opinions on rare and unusual cases, and at the same time to say that we shall be greatly obliged to all those who can send us such. I appeal especially to the medical officers of public institutions, but not to them exclusively. We ask for the coöperation of the

whole profession, and in the assurance that those who will kindly take a little trouble in this matter will confer a general obligation and at the same time assist materially in the development of clinical knowledge. All communications respecting patients should be sent to Dr. Colcott Fox, 14, Harley-street, or to Dr. Galloway, 21, Queen Anne-street. The meetings will take place in the Examination Hall on the Embankment. The opening meeting (for which tickets will not be required) will be on Tuesday, Aug. 4th, at 12 o'clock.

I am, Sirs, yours truly,
JONATHAN HUTCHINSON,
July 27th, 1896. President of the Congress.

"A NOTE ON SURGEON-LIEUTENANT-COLONEL LAWRIE'S LECTURE ON MALARIA."

To the Editors of THE LANCET.

SIRS,—In an article by Dr. George Thin under the above heading the following passage occurs:—

"I shall be pleased to show any member of the medical profession in India who visits this country the preparations which I demonstrated at the meeting of the Royal Medical and Chirurgical Society or preparations of a similar kind, and provided he is already possessed of a sufficient knowledge of the blood I have no hesitation in expressing the conviction that I can convert him to believe in the parasitic nature of these bodies."

I accept this as a challenge from Dr. Thin. One of my students, who has helped me throughout, is now qualified, and possesses a sufficient knowledge of the blood, is proceeding to England next month, and will meet Dr. Thin at any time and place he may appoint in order to examine the preparations of malarial blood he may be pleased to show. The only stipulation I desire to make is that an independent representative of THE LANCET be present. I have no hesitation in expressing the conviction that my student will be able to explain satisfactorily the precise nature of all the appearances and structures in malarial blood, stained or unstained, which Dr. Thin brings forward as animal parasites.—I am, Sirs, your obedient servant,

Hyderabad, Deccan, July 8th, 1896. EDWARD LAWRIE.

"TUBERCULOSIS AND LEPROSY: A PARALLEL AND A PROPHECY."

To the Editors of THE LANCET.

SIRS,—Dr. Arthur Ransome in a footnote to a lecture read before the Bournemouth Medical Society, and published in THE LANCET of July 11th, 1896, appears to make me attribute the great decrease of mortality from tuberculosis which has occurred during the last sixty years "amongst the British races to an increased resistance to the microbe, a power due to the accumulation of inborn variations." May I be allowed to say that in this he is mistaken? In my book I ascribed the superior powers of resistance shown by us, as compared, for instance, to the Polynesians, to the fact that, unlike the latter, we are descended from an ancestry which has long been weeded out by the disease, whereby, by the continual survival of the fittest, increased powers of resistance have been evolved in us. But this evolution can be ascertained only by comparing the British races with others which have been less, or not at all, affected by the disease. It cannot be measured by, and has nothing to do with, any sudden increase or decrease of the mortality amongst us. Sudden increases or decreases of the mortality may result *in* evolution or retrogression, but do not result *from* them. In other words all sudden changes of the death-rate are causes, not effects, of evolution or retrogression and are themselves obviously due to changes in the external conditions—e.g., to altered sanitation. I am, Sirs, yours very truly,

Southsea, July 13th, 1896. G. ARCHDALL REID.

"A CASE OF FÆCAL FISTULA: A NEW MODIFICATION OF ENTERECTOMY."

To the Editors of THE LANCET.

SIRS,—The very interesting case of a new modification of enterectomy in a case of fæcal fistula recorded by Mr. W. H. Brown in THE LANCET of July 18th is one more case illustrating the advantage of resection of the injured parts of the bowel and restoring the continuity of the intestinal canal by the union of the divided gut end to end. The chief modification in Mr. Brown's case appears to be the stitching of a flap of skin over the fistula, as suggested by Dr. Oswin, to prevent the escape of the contents of the bowel. Now, in all ordinary cases this can be quite as well accomplished by plugging the bowel through the fistula with wool or gauze. I have adopted this method quite recently in a case of fæcal fistula, the history and details of which will, I hope, appear in the columns of THE LANCET shortly. With respect to the method of uniting the divided ends, Mr. Brown does not mention by what method he accomplished this, but I have found for rapidity of application Mayo Robson's bobbins most useful, while in other cases I have performed Widenham Maunsell's operation with great success. I am, Sirs, yours truly,

FRED. BOWREMAN JESSETT.
Buckingham Palace-mansions, S.W., July 21st, 1896.

"ON THE ORGANIC MEMBRANES AS INSULATORS."

To the Editors of THE LANCET.

SIRS,—We shall for the present, I think, have to be "content to look upon a membrane of the body, the pericardium, the periosteum, the capsule of the kidney, and any structure of the kind as a covering of the organ," &c., rather than to regard them as "electrical insulators" as set forth in THE LANCET of July 11th by Sir B. W. Richardson. The membranes in question when moderately dry are certainly of high resistance considered as conductors, but not sufficiently high to be regarded as insulators. But when an organ—say, the kidney—is *in situ*, its capsule, permeated as it is by its natural fluids, possesses considerable conductivity and nothing approaching insulation is possible, even if it were not, as it is, in conduction connexion with all the rest of the body through the blood. The resistance of these membranes is, of course, enormously increased by drying them, but with this we have nothing to do, since it is their insulating power under normal conditions in the living body that is under discussion. Sir B. W. Richardson mentions the difficulty there was in detaching the pericardial membrane for his experiments, but I cannot see why he should have taken that trouble considering the purpose he had in view; but whether detached or otherwise there is no difficulty in demonstrating their conductivity. If Sir B. W. Richardson will repeat his experiment and introduce a fresh kidney into the circuit by passing one of the ends of the divided conductor into the kidney, the other end, with the platinum disc as an electrode, being placed on the capsule of the kidney, a very sensible deflection of the needle of the galvanometer will be observed, even though the face of the disc be covered with a detached portion of the membrane as a precaution against any possible defect in the continuity of the capsule. Of course the galvanometer must be sufficiently sensitive for the purpose. The lining membrane of the eggshell may be examined in the same manner and will give similar results, though it is of higher resistance than the capsule of the kidney.

The unit of resistance for insulators adopted by electricians is the megohm (or million ohms) and their resistance often amounts to many millions of megohms per cubic centimetre, whilst the resistance of the above membranes under the conditions named I found roughly to vary from a few hundreds to a few thousands of ohms only per square centimetre. To compare the resistance of these structures to that of gutta-percha is to trifle with the meaning of words, seeing that the resistance of the latter is about 450,000,000 megohms per cubic centimetre. I need hardly add that Sir B. W. Richardson's view that the capsule of the kidney is "a perfect insulator" and "that the kidney as it swings in its place is completely insulated" is, in my opinion, entirely untenable. I am, Sirs, yours faithfully,

July 20th, 1896. FREDERICK GEORGE, M.D.

THE EXAMINATION OF WATER SUSPECTED TO BE CONTAMINATED BY CHOLERA VIRUS.

To the Editors of THE LANCET.

SIRS,—Will you please publish the following and give your opinion on the same:—

A. contends that in every case of cholera a sample of drinking water should be sent to the nearest medical man for

chemical analysis (not bacteriological) "as it affords information as to the quantity of organic matter, the presence of which in excessive quantity must tend to the proliferation of cholera germs. It also would indicate a likelihood of contamination by excreta ....." B. contends that sending a sample of suspected water under such circumstances is not only useless, but positively injurious. It is useless because no chemical examination can lead to any conclusion about cholera (apart from the question of potability of the water under ordinary conditions), and bacteriological examination, however useful for scientific research when systematically performed, will not be of any practical utility. The most practical course, B. suggests, is to ascertain the source of water and by careful inquiry to ascertain if all or many using the same have been attacked with cholera. If found so, then we may safely conclude that the water is unsafe and arrange to disinfect it and prohibit its use for some time. Sending the water is positively injurious, inasmuch as it will tend (through very trivial oversight or mishap, such as breaking of the bottles, &c.) to convey cholera from one locality to another. Your opinion on the above will oblige.

I am, Sirs, yours truly,

Ghadechi, June 15th, 1896. N. F. BUNSHAW, L.M. & S.

*** No doubt the presence of the comma bacillus—is assumed to be the essential cause of cholera: ergo, a bacteriological examination is the true and proper one. But it is equally true that a chemical analysis will indicate the contamination of water with products which should not be there and being there may give rise to disease and afford a nidus for the proliferation of any micro-organism or germ. The bacteriological examination of water takes time, and cholera also does not stop pending an inquiry into its nature. It is again exceedingly difficult amid all the micro-organisms morphologically allied, or alleged to be allied, to that of the comma bacillus, to tell whether that found be of the true kind. No doubt the safest and simplest method of procedure is to ascertain the source of the water used and whether its use for potable purposes has been followed by any attacks of cholera, diarrhœa, or sickness, and to act accordingly—namely, to suspend or altogether prohibit its use, or to boil it before being used, if it be the only source of supply. This will not interfere with both a bacteriological and chemical examination being undertaken; the one is supplementary and complementary of the other, we should say. The probability of the conveyance of cholera from one locality to another by some accident to a sample of water seems to us too remote to require to be taken into calculation. If the essential cause of cholera be Koch's bacillus, it can scarcely light up an outbreak or epidemic in the absence of all the other necessary conditions.—ED. L.

THE BRADFORD SCHOOL BOARD AND MEDICAL CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—We beg to thank you for the kindly annotation in THE LANCET of July 25th, in which you congratulate us on the victory we have won over the board on behalf of the medical profession. At the same time we wish to point out that our victory has been complete and very different indeed from the imperfect result which someone reported to you and which we would never have accepted as satisfactory or final. The School Board has agreed to accept *all medical* certificates as sufficient without question. It is a fact that the School Attendance Committee proposed that the medical officer of the board should be authorised to demand a consultation with the medical attendant of a child stated to be absent from school through illness, the Board to pay for the consultation. This indignity we would never have tolerated, and we are glad to say that the majority of the board refused to adopt such a proposal from the committee. One member, the Rev. Mr. Addison, designated it an "impertinence." Such an effect had our attitude on the Board that they did not even adopt the usual procedure of referring the objectionable minutes back to the School Management Committee for reconsideration, but promptly altered it by an amendment which compels the committee to accept *all* medical certificates and entirely withdrawing all suggestion of the medical officer investigating the honesty or the skill of the medical attendant as proposed by the committee. This highly satisfactory result has been gained by the complete unanimity and determination of the members of the society to maintain the dignity and independence of our honoured and honourable profession.

We are, Sirs, yours faithfully,

THOS. WHITESIDE HIME,
President, Bradford Medico-Ethical Society.
JOHN DUNLOP,
HERBERT E. HICK, } Joint Hon. Secs.

July 28th, 1896.

"THE RELATIVE EFFICIENCY AND COST OF PLUMBERS' WORK."

To the Editors of THE LANCET.

SIRS,—At a meeting held this day of this the London and District Branch of the National Association of Master Plumbers of Great Britain and Ireland it was moved and carried unanimously "that the executive hereby records its hearty and best thanks to the Editors and Proprietors of THE LANCET for the interest they have shown, for the benefit of all classes, that plumbers' work should be well and thoroughly done, as evidenced in the appointment of 'THE LANCET Commission to Inquire into the Relative Efficiency and Cost of Plumbers' Work' and the report of the Commission published in your journal, No. 3801, July 4th, 1896."—I am, Sirs, yours respectfully,

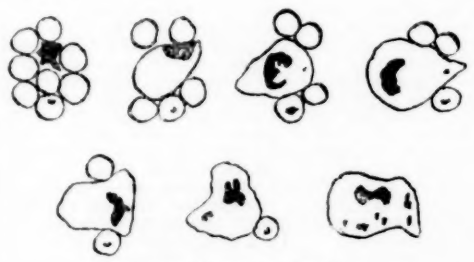
DANIEL THOMAS BOSTEL, SEN.,
Honorary Secretary; also Vice-President of the Association.
London, S.W., July 22nd, 1896.

P.S.—I enclose you report of our annual meeting held at Nottingham last month.

"THE CAUSE OF MALARIA."

To the Editors of THE LANCET.

SIRS,—Having recently come from Netley, where—under Professor Wright's personal supervision—I saw various phases of the Laveran body, I shall be glad if you will allow me to describe, without regard to any theory, what I saw through the kindness of Surgeon-Lieutenant-Colonel Lawrie at the Afzulgunj Hospital on the morning of June 26th. Under the microscope was a fresh, unstained preparation of blood taken from a patient with a temperature of 104·2° F. suffering from irregular quotidian ague. In the centre of the field there was a most perfect rosette form of the Laveran body, consisting of a central mass of black pigment surrounded by eight non-nucleated spores, the so-called daughter cells.



Laveran body in the blood.

Whilst watching I observed the plasmodium become more oblong in shape and gradually two of the end spores became separated from the main body, the remaining spores closing round the central pigmented mass. In the course of an hour the plasmodium assumed various shapes and one more spore became detached. Eventually, however, the separated spores or daughter cells became re-united to the main body, the rosette shape was lost, and the individual spores lost their definite outline and became merged in the parent cell. The resulting body was apparently a white blood cell containing pigment, which was now scattered about both centrally

and peripherally in an irregular manner. When last seen the body remained in all appearance exactly like an ordinary Laveran body. The drawing was made by Dr. Burrows at the time and represents some of the changes which he saw the body undergo. If this is the natural evolution of the Laveran body it is clear that it cannot be a parasite.

I am, Sirs, yours truly,

E. L. PAYNE,
Surgeon-Lieutenant, 5th M.I.

Secunderabad.

"RHEUMATIC DILATATION OF THE HEART."

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Lees's letter on this subject in THE LANCET of July 25th I should like entirely to endorse his opinion with regard to the frequency, if not the invariability, of dilatation of the heart in acute and sub-acute attacks of rheumatism. I have seen a case where the left cardiac margin extended to the axillary line, and since practising the Nauheim treatment I have not seen a case of rheumatic fever without some dilatation of the heart. I have further observed (with a mathematically accurate method of percussion) that cardiac dilatation obtains in all cases of high temperature. A systolic bruit is very frequent in cases of pure dilatation, the bruit disappearing when the dilatation is reduced—vide Case 5 in my paper on the Schott Methods for the Treatment of Chronic Affections of the Heart in THE LANCET of March 21st, 1896, where the bruit disappeared in half an hour. With improved methods we are on the verge of extraordinary discoveries of the capability of the heart for dilatation. Recently I had an opportunity of percussing the heart of a patient immediately after a severe fright and found the left cardiac boundary exceeding the normal by three inches, and the dilatation extended upwards as near the jugular fossa as possible, causing violent palpitation and a feeling of suffocation, the heart returning to its normal boundary in half an hour.

I am, Sirs, yours faithfully,

ERNEST KINGSCOTE.

Lower Seymour-street, W., July 26th, 1896.

A CASE OF OVARIAN PREGNANCY.

To the Editors of THE LANCET.

SIRS,—I have read with great interest Dr. Oliver's case of ovarian pregnancy published in THE LANCET of July 25th. The writer states that "the tumour, which was the right ovary, was found to be a closed sac containing a full-grown fœtus with its cord and placenta. ..... No breach in the right Fallopian tube could be detected either at the time of operation or afterwards." I trust that so valuable a specimen will be skilfully mounted and carefully preserved. It appears to be an instance of ovarian pregnancy, but evidence is wanting that the ovary was the primary seat of the abnormal gestation. Allow me to refer Dr. Oliver to some notes which I published in the Transactions of the Obstetrical Society, vol. xxxv., 1893, p. 222, entitled "Fœtus in Peritoneal Cavity: Question of Abdominal Gestation, with a Summary of Reported Cases of Primary Abdominal and Ovarian Pregnancy." Dr. A. Beale's case, on which the notes were founded, is very instructive. The fœtus lay on the broad ligament close to the tube, whence it had probably been shed. I noted (p. 232) that Dr. Lusk attached little credit to cases where the tubes are reported as intact and not in communication with the sac. I further observed that the theory that the fimbriæ might retract from an ovum developed in the ostium was supported by the high authority of Braun of Vienna, who observed that when the ovum developed in the outer part of the tube the membranes might project freely from the ostium and contract adhesions to the surrounding structures, the ovary, for example. Further development would lead to the evident source of fallacy indicated by Lusk. Thus in an advanced case like Dr. Oliver's it is impossible to prove that the ovary was the primary seat of the pregnancy. In four out of the five cases of alleged primary ovarian pregnancy which I analysed gestation was more or less advanced. I concluded by showing that we cannot hold primary ovarian pregnancy as proved until some observer can demonstrate a minute fœtus lodged in a sac entirely inside the ovary, just as we so often detect a very early ovum entirely inside the tube. Such a specimen has not been satisfactorily demonstrated, whilst early tubal pregnancy is familiar to us all. Hence it is more probable that the fœtus in Dr. Oliver's case developed originally in the tube and escaped after the fashion indicated by Braun, than that it was from the first an inhabitant of the adjacent ovary.

If primary ovarian pregnancy be possible, how is it that we do not meet with hæmatoceles destroying the ovary at an early stage of gestation? This accident is very frequent in tubal sacs. I published in THE LANCET[1] four cases which came under my own care within four months. Yet an early ovum in the ovary would be poorly protected and very liable to burst. The grafting of an older ovum with strong membranes on the surface of the ovary is not difficult to understand.

I am, Sirs, yours faithfully,

Granville-place, W., July 25th, 1896. ALBAN DORAN.

"THE MILDER VARIETIES OF APPENDICITIS."

To the Editors of THE LANCET.

SIRS,—The views of a surgeon on medical treatment are always interesting but sometimes misleading. In an address under the above title published in THE LANCET of July 25th Mr. W. Arbuthnot Lane has laid down some rules for the treatment of appendicitis. He says: "In the mild forms the regulation of the functions of the intestines by means of the suitable combination of drugs already indicated (strychnia, belladonna, and aloes) is sufficient to relieve the patient of further recurrences. If the attack is very painful give morphia to allay the pain, keep the patient perfectly quiet, and if you suspect any loading of the large bowel give a large enema. If the pain, vomiting, and general disturbance are great give morphia in sufficient quantity to keep the patient thoroughly under its influence." Of course Mr. Lane is aware that the disastrous results of thus drugging the patient with morphia and concealing all symptoms, more especially those pointing to the necessity for surgical interference, have led many physicians to discontinue the use of the drug entirely in this affection. But, further, if the attack of appendicitis follows the ingestion of a heavy meal, as is not uncommon, the effect of morphia in causing the retention of a large amount of undigested material in the bowel will tend to aggravate the inflammation. In consequence of the recognition of this fact physicians have been led to employ an evacuant treatment by salines, &c., and thus frequently to cut short an attack. This treatment, although it may not fit in with Mr. Lane's theory of fæcal pellets popping in and out of the appendix, will be found serviceable in many of "the milder varieties of appendicitis."

I am, Sirs, yours faithfully,

G. A. SUTHERLAND,

Old Cavendish-street, W., July 27th, 1896.

MIDWIVES REGISTRATION.

To the Editors of THE LANCET.

SIRS,—I enclose a copy of some correspondence which, as it refers to a matter of importance to the profession, I shall be glad if you can publish.

I am, Sirs, yours faithfully,

Hatfield, Herts, July 26th, 1896. LOVELL DRAGE.

"Hatfield, Herts, July 21st, 1896.

"SIR,—I have the honour to place the resignation of my membership of the Council of the Obstetrical Society in your hands. This course, which, in view of the honour which the Fellows of the Society conferred upon me by their selection, I now take with much regret, would have been adopted by me earlier had it not been my conviction that in view of my opinions upon the questions of the prevention of puerperal fevers and the registration of midwifery nurses it was my duty to do what lay in my power to modify what have since been universally recognised as ill-considered measures, rather than to take the easier steps of avoiding my share of the discussion and the disagreeable necessity of opposition. In January, 1891, a discussion on the Principles of the Midwives Registration was instituted by the Council, but no indications of any details of legislative measure were given and discussion was therefore fruitless. Since that time, however, a Bill for the Midwives Registration has been introduced in the Houses of Parliament and the Council has taken steps to further the progress of that Bill. Now I have protested against the taking part of a scientific society whose organisation is unfitted for political discussion in a matter of politics. I have urged the impropriety of the action of the Council in taking steps to further the progress of a Bill when

[1] THE LANCET, March 28th, 1896, p. 836.

no line or a single syllable of that Bill has ever been discussed either in the Council or in the meetings by the Fellows of the Society, and, further, the unseemliness of allowing the Legislature and community to be led to the belief that the Obstetrical Society was in its favour; under these circumstances I have invited the Council to call a meeting of the Fellows in order that the Bill might be discussed, supporting this with a request signed by three Fellows of considerable standing in the society, one of them an ex-President, but this invitation was not accepted. I have called attention to the conduct of business at the last annual meeting, and moved a resolution proposing the formation of a committee to revise the rules relating to the public business of the society. The resolution was lost. Since this was the last constitutional step I could take by way of protest I feel that there is no longer any reason for me to remain in a position in which I can be of no service to those who elected me and which is most distasteful to myself.

"Your obedient servant,
"LOVELL DRAGE.

"The President of the Obstetrical Society of London."

"Obstetrical Society of London, July 22nd, 1896.

"DEAR SIR,—I beg to acknowledge the receipt of your letter resigning your seat on the Council of this society.

"Yours faithfully,
"F. H. CHAMPNEYS.

"Dr. Lovell Drage."

NURSING HOMES AND SECRET COMMISSIONS.

To the Editors of THE LANCET.

SIRS,—The Lord Chief Justice recently said in reference to secret commissions:—

> This business of corrupt bargains was a malignant canker; it was affecting honesty in all, or in many, details of the relations of life, and was not confined to commercial relations. It was dishonest to fair trading; it was dishonest to the fair employer; it broke down that principle of morality which ought to be preserved among men who desired to cultivate and deserve honesty.

For some time past there have been whispers that some members of our profession are directly interested in certain nursing homes and are pecuniarily concerned in the prosperity of these institutions as commercial undertakings. This alliance is fraught with many evils, but there is one which is particularly grave—namely, the temptation and opportunity it affords to send patients into these homes unnecessarily for treatment, which may be more or less unnecessary also. But the confederacy manifests itself in another way. A few days ago the proprietress of a long-established home asked my advice and opinion respecting a proposal which had been made to her by a surgeon to the effect that she should pay him a commission on all the patients he should send to her. She asked whether it was usual and right for a medical man to ask or to receive such commissions. I replied that I hoped and believed it was not usual and that it was certainly not right. Is the "malignant canker" attacking our profession? If so, the sooner it is eradicated the better.

I am, Sirs, yours truly,
JOHN TWEEDY.

July 23rd, 1896.

"THE QUESTION OF MEDICAL DEFENCE."

To the Editors of THE LANCET.

SIRS,—It is a matter of regret that you should have still to speak in the plural number of Medical Defence Societies, the object of which is the same and which are respectively presided over by gentlemen of the highest scientific and personal character.

To me it seems also a matter of regret that as regards one of these there is a prospect of its being merged or lost in the great medical association which was founded for nearly all medical purposes but this one of medical defence. The number of members of these societies and the number of cases in which the action of the societies is invoked are proof of the necessity for specialising this work and having a society to do it. I cannot see the necessity for two societies, but as to the necessity for a special society I have no doubt. It is, of course, possible that as the mere section of a great association, a defence or protection committee may have the efficiency of our present societies, but I very much doubt it; and I very much doubt whether members of the Medical Defence Union—which is understood to contemplate parting with its identity after having achieved a creditable reputation for usefulness—will think so. It may be said that this is a mere domestic matter of compatibility of temper between two societies, and to a certain extent this may be admitted. But neither the leaders of the British Medical Association nor of the Medical Defence Union would take it as a compliment to have it said that their amalgamation or their separation was a matter of indifference to the profession to which they both have done such signal service. The functions of the British Medical Association are already legion, and further multiplication may only lead to inefficiency and disappointment. It is evident that among its own members there is grave doubt as to this new development and the form it should take. The words of Lord Melbourne will come to the minds of many, "Can't you leave well alone?"—I am, Sirs, yours faithfully,

July 27th. M.D.

*** Our correspondent, M.D., will observe that the same doubt has entered our minds. We have given expression to it in more than one article.—ED. L.

To the Editors of THE LANCET.

SIRS,—Your able leading article last week on this subject seems to me—I say it respectfully—to lack one thing, and that is a cordial recommendation to the profession to join one or other of the Defence Societies. Medical defence is a new want in the profession, or rather it is a want the seriousness of which we have only recently realised. It is not very imaginable that the mere supply of such societies could create a demand for them, from which it follows either that there is an increased tendency in the public to exact more from their medical attendants than is reasonable, or to be critical and ungenerous in their construction of professional service, or, worse still, that there is a growth of unprincipled or morbid classes that are ready to extort money from a medical man on any pretence whatever—classes to whom the very nature of medical practice gives special chances and opportunities.

It would be a mistake to suppose that the medical is the only profession that suffers such annoyances. They are experienced not infrequently by lawyers—not, indeed, in the gross and morbid forms in which medical men are often attacked, but in the form of charges of negligent and unskilful treatment of cases. I have not heard that the number of such cases is such as to have given rise to special defence societies in the legal profession, but they are not infrequent and are generally arranged without public appearance. This is the great service done to the medical profession by its defence and protection societies. They avert or arrest legal processes involving cost, worry, and publicity at such an extremely small expense that a medical man is unwise who willingly neglects to become a member. Of course, the first line of defence in every honest and fairly capable member of the profession is his carefulness to preserve his own character and the reputation of his profession, and no society or number of societies will avail to protect men who do not so protect themselves.—I am, Sirs, yours faithfully,

July 28th. D.V.

A ZEALOUS MEDICAL OFFICER OF HEALTH.

To the Editors of THE LANCET.

SIRS,—The following case may be of interest as well as a help to others, especially to younger medical men beginning life. A few weeks ago a lad was brought to me suffering from a simple sore throat. I ordered him to bed and called afterwards. A very doubtful and slight rash determined me in watching the patient and explicitly warning the mother that it might turn out to be scarlet fever. The parent being poor I called again gratuitously, each time explicitly warning her of future possibilities. On calling in about two weeks from the date of the child being first ill I was told he was out, probably enjoying himself with other youths of the town. I asked if he were desquamating. "No, not the slightest signs." Still not satisfied, I examined the child that evening and next day and found him desquamating on the hands and body. I at once reported the case and advised removal. A few days afterwards I received a letter from the medical officer of health saying he "was informed" that I had told the parent four days after I first saw the boy that he was suffering from scarlet fever, and would I be so good as to give my explanation, as he was bound, &c., to bring the matter before his committee. Many medical men would have replied to such a frivolous piece of hearsay in a very few lines, but instead I courteously informed this gentleman of the facts as I have given them—a result beneficial to the parish as well as to the boy. I certainly expected some apology, but

neither apology nor thanks have I received. The case, at all events, is instructive and I would impress a few points on my brother practitioners. In all doubtful cases we should be most explicit in everything we say and never give a hasty opinion. We need not do so, as the law is fortunately clear on the question. The moment we pronounce the disease infectious we should notify at once and *post the notification with our own hands*. A short time ago I saw a boy with nothing but a white patch about the size of a pea on his uvula. I watched for scarlet fever and afterwards found my suspicions amply verified. Dealing at times with ignorant patients in these matters is always more or less of a worry, but we do not expect to be called upon for explanations obviously puerile and frequently irritating.

I am, Sirs, yours faithfully,

July 25th, 1896. EXPERIENTIA DOCET.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Royal Infirmary.

The Public Health Committee of the Edinburgh Town Council have had before them a representation from Sir Henry Littlejohn, medical officer of health for the city, relating to the reconstruction of the Royal Infirmary laundry in Lauriston-place. This representation pointed out the many complaints the laundry had previously given rise to from residents in the neighbourhood, and maintained that in the interests of public health the laundry ought to be removed to the country. At the same meeting certain proprietors in the neighbourhood stated their views on the subject before the committee. The sub-committee, to whom Sir Henry Littlejohn's letter was remitted, met next day and expressed regret that the infirmary managers were to erect the laundry within the infirmary grounds. They regretted that it was not to be taken out of the city, where there would be more air and where the smell of the washing would not annoy dwellers in the neighbourhood.

British Institute of Public Health.

The meetings of the Institute commenced in Glasgow on July 23rd with a formal reception of delegates by the Lord Provost and magistrates in the Bute Hall of the University. After some remarks by the retiring President the Lord Provost, Sir James Bell, Bart., was installed as President and delivered an address to the delegates, taking as his subject the Sanitary Progress of Glasgow during the past Fifty Years. The statistics submitted showed that, as compared with the citizen of fifty years ago, a person of his years of age has now an expectation of six years longer life. Another feature of the opening day's proceedings was a highly successful and entertaining address by Professor William Ramsay on the Smoke Nuisance, which he contended would be altogether removed if the practice of using coal were discontinued in favour of gas and coke. Some practical suggestions were submitted by which this end could be attained. Amongst the papers submitted to the various sections may be mentioned Dr. J. B. Russell's address on Dust as a Means of Infection; Ptomaine Poisoning, by Sir Charles A. Cameron; "Return" Cases of Scarlet-fever, by Dr. A. K. Chalmers; and the Construction of Hospitals for the Treatment of Infectious Diseases, by Dr. Alexander Johnston. In the last-mentioned paper it was stated that the mortality from scarlet fever in Glasgow had fallen from 17 per cent. in 1874 to 4·9 in 1894. The Congress was entertained by the Corporation, the University, and the Faculty of Physicians and Surgeons. Saturday, which was devoted to excursions, was a most unfortunate day, the weather being of the worst description.

Medical Appointments.

Dr. J. K. Kelly has been appointed surgeon in charge of the wards for diseases of women in the Glasgow Royal Infirmary, vice Dr. Stirton, resigned. He has consequently resigned his position as surgeon to the Samaritan Hospital. The position of clinical assistant at the Samaritan Hospital is also vacant and it has been decided that women candidates only shall be eligible. The post of vaccinator at the Royal Infirmary is vacant by the death of Dr. Hugh Thomson.

Glasgow University.

At the summer graduation on July 21st the degree of M.D. was conferred upon fourteen gentlemen, four of these, Mr. F. Dittmar, M.A., M.B., Mr. A. A. Gray, M.B., Mr. A. T. Nisbet, M.B., and Mr. Jas. Todd, M.B., being awarded "commendation" for their theses. Sixty-six candidates received the degrees of M.B. and C.M. Of these, two gained "Honours"—viz., Mr. Joseph Knight and Miss Madge Spiers Maclean; whilst Mr. S. Anderson, B.Sc., Mr. Hugh Calderwood, B.Sc., Mr. J. S. McKendrick, and Mr. J. A. Hope were "commended." The list included altogether five successful women candidates. The Brunton Memorial Prize, awarded to the most distinguished medical graduate of the year, has been gained by Mr. J. Knight, M.B. The Dill Prize, for the best thesis presented for the degree of M.D. in the years 1893–96, has been gained by Mr. W. R. Jack, B.Sc., M.D. In the medical classes the following distinctions have been gained: Forensic Medicine, medal, Miss Daisy Clark; Practical Pharmacy, medal, Mr. Alex. Wilson; Diseases of Women, medal, Mr. J. S. McKendrick; Clinical Medicine (Dr. Gairdner), medal, Mr. J. D. Cochrane, Mr. Hugh Calderwood *proxime accessit*; Clinical Medicine (Dr. McCall Anderson), Mr. Andrew C. Wilson, B.Sc.; Practical Physiology, medal, Mr. Alex. Wilson; Embryology, prizemen, Mr. Robert Fullarton, M.A., and Mr. Fredk. E. Stokes; Practical Zoology, medal, Mr. David Kyle; Botany, medallists, Mr. Jas. D. Lickley and Mr. J. D. Richmond; Practical Chemistry, medal, Mr. Alex. Birch; Practical Pathology, medal, Mr. Wm. Webster; Insanity, Mackintosh Bursar, Mr. Thos. Hunter, M.A.; Diseases of the Ear, prizes, Mr. Norman McNair, B.Sc., and Mr. D. L. Cairns.

Aberdeen Royal Infirmary.

THE rule requiring in-door patients to produce recommendatory "lines" before admission has been abrogated.

Aberdeen Hospital Saturday Fund.

The receipts have been found to be £1133 12*s.* 5*d.* and the expenditure £156 7*s.* 9*d.* The sum of £950 is recommended to be allocated as follows:—Aberdeen Royal Infirmary, £550; Aberdeen Royal Hospital for Sick Children, £100; Aberdeen General Dispensary, £100; Convalescent Hospital, Pitfodels, Aberdeen, £50; Aberdeen District Nursing Association, £50; Aberdeen Ophthalmic Institution, £50; Hospital for Incurables, Morningfield, Aberdeen, £50; leaving a balance of £27 4*s.* 8*d.* to be carried forward.

Marischal College Extension.

The University buildings extension sites and plans committee have instructed Mr. A. Marshall Mackenzie, A.R.S.A., the architect, to procure tenders for the construction of a south wing for a distance of eighty feet at a cost of about £11,000. Accommodation will be provided for the Natural Philosophy department, the intention being on the completion of the new buildings to transfer the teaching of physics from King's College, Old Aberdeen, to Marischal College. The wing will at present end beside Greyfriars Church, and the erection of a terminal tower will afterwards have to be arranged. Nothing definite has yet been arranged as to additional accommodation for the Natural History Department.

Death of Dr. T. G. Weir.

I regret to announce the death of Dr. Thomas Graham Weir. He was one of the oldest practitioners in Edinburgh and son of an officer who had served under Nelson at the battle of the Nile. He was educated at the High School of Edinburgh and at a school in England, after which he entered upon the study of medicine. In 1837 he took the degree of M.D. Edin. and in 1847 was elected a Fellow of the Royal College of Physicians of Edinburgh. After graduating at the Edinburgh University he spent some time in study at various Continental medical schools. Dr. Graham Weir was one of the original founders of the Sick Children's Hospital in Edinburgh in 1859, and in the course of a long professional career filled many important offices in connexion with the medical institutions of Edinburgh. He was consulting physician to the Royal Hospital for Sick Children, consulting physician accoucheur to the New Town Dispensary, and honorary physician to the Royal Infirmary at the time of his death. Dr. Graham Weir, who died on the 20th inst., was eighty-five years of age, and in him Edinburgh has lost one of its most respected practitioners. Before his death he had to a great extent withdrawn from private practice, but those of his older patients whom he still continued to see will lose in him more than a medical attendant—one whom they speedily learned to look on as an affectionate friend.

July 27th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Apparent Death.

THIS subject, a supremely important one in Southern Europe, where sepulture follows so closely on the announcement of death, will be investigated by a special commission now in course of formation at Turin and already numbering not a few of the leaders of the sub-Alpine school. The commission, it is understood, will also welcome the coöperation of physicians of other nationalities, and as the time of its meeting will be 1898 and the place Turin itself, where an "Esposizione Nazionale" on a most attractive scale is then to be open, it is thought that the difficulty of organising a commission really representative of contemporary medicine will not be great. The gravity of the question, as I have said, is for Italy exceptionally pronounced, as she has not forgotten the revelations of her distinguished pathologist Pacini during the cholera epidemic of 1866 and still recalls with something like a shudder the "misadventures" (to use no stronger phrase) of the yet more terrible cholera explosion of 1884. Pacini's remarkable paper "Sulla Morte Apparente, l'Ultimo Stadio del Colera Asiatico" ("Apparent Death, the Last Stage of Asiatic Cholera") was analysed in THE LANCET of Aug. 9th, 1884, in an article on Cholera and Cremation, in which it was shown that the dread of being burnt alive (as many were undoubtedly buried alive) was seriously affecting the adoption of cremation itself; and instances were adduced in which that dread—particularly in a somewhat backward and superstitious population—was amply justified. Turin herself furnished a case, which was perhaps the most striking, in proof of Pacini's warning. A physician of that city who had done admirable service all through the epidemic of 1884 fell at last a victim to the malady, was certified as dead, and was already laid out in his winding sheet, while his family in an adjoining room were awaiting the arrival of the undertaker. Suddenly they heard a faint sound at the door, which was then feebly opened, and there they saw the physician himself, who half an hour before might have been hermetically sealed in his coffin, supporting himself against the door-post and upbraiding them in a voice scarcely audible for having neglected him so long. The panic-stricken family had him at once replaced in bed, and with the best aid that could be got endeavoured to resuscitate him, but in vain. He died shortly afterwards from cardiac failure. Such instances, I repeat, have made too profound an impression in Italy to render "apparent death" other than a weirdly fascinating theme, all the more that in a preliminary manifesto the commission now forming at Turin indicates premature sepulture, or even cremation, as extremely apt to follow in neurosal or cardiac cases, such as catalepsy and syncope. Prizes will, I believe, be offered by the commission for the best and the next best monographs on "Apparent Death," while the conditions under which the competition will take place are to be settled at an early meeting. For those of your readers who may wish to become competitors I will not fail to put those conditions *en évidence* as soon as they are made *publici juris*.

Lead-poisoning: Wholesale and Retail.

The Bologna sausage and the "zampone di Modena" (pig's trotter stuffed with minced pork) are largely consumed by the upper and middle classes of Italy and in the tourist season figure often and not unacceptably in hotel *menus*. Some years ago an extensive series of frauds were brought to light in their manufacture—horseflesh, and that often in an unsound condition, being employed instead of the pork which was professedly their principal ingredient. This exposure and the penalties inflicted on the offending manufacturers restored the sausage and the "zampone" to pristine favour; but now another and more dangerous element impairs their quality and jeopardises the consumer—an element imported, it is fair to say, by other hands than the manufacturer's. Milan, it seems, is the chief sufferer in this regard, and has raised a protest which the Consiglio Sanitario (board of health), not a day too soon, is at this moment considering. The sausage manufacturers, whose establishments are outside the city, pay the usual tax on salted articles. Some compound for this by an annual payment; the majority pay by tariff. These latter, on payment, get their sausages, even of the smallest size, ticketed with lead—a regular leaden seal of the mediæval type—and then they are free to distribute them to the dealers. They are then sold to the public, in most cases already cooked, the cooking process including the heavy leaden seal aforesaid. One may readily divine the consequences. Most sausages contain salts, such as nitrate of potash, chloride of sodium, &c.; besides this, the intestine used as their envelope is washed with vinegar, or even moistened in wine, which also in turn becomes acidulated—all of them substances which in contact with oxide of lead produce poison of varying intensity. In this state the sausages are consumed by a large public, native and foreign, while the liquor in which they have been cooked—a liquor charged with the salts indicated—is by way of charity distributed to the poor. It was only after analysis at the municipal laboratory of Milan—an analysis promoted at the instance of the engineer Gattorni—that the extent of the mischief thus perpetrated was realised. The manufacturers, to their credit be it recorded, are memorialising the communal and civic authorities to replace the leaden seal by another made of some innocuous metal—tin or aluminium, for instance. Meanwhile, the public, Italian and foreign, are now face to face with the origin of the unpleasant abdominal symptoms of which there have been so many complaints recently.

Fever in Barracks.

From Bologna I hear that the garrison quartered there for the city and province is suffering gravely from fever, the provoking cause of which is the extreme insalubrity of the soil on which the barracks are built. A commission of bacteriologists, reinforced by an eminent functionary of the army medical staff, Dr. Alloatti, is at present subjecting the soil to analysis. Meanwhile the sick list from among officers and linesmen belonging to the garrison is so heavy that the impending autumn manœuvres will be shorn of their effective contingent from Bologna. Nor is it the chief city of the Emilia only that, from unhealthy subsoil, has its aggregate population, civil or combatant, labouring under chronic malaise. So many of the establishments, including manufactories, schools, monasteries, and nunneries, as well as garrisons, occupy sites mediæval in character and exempted since their origin from all sanitary rehabilitation that one marvels that epidemic disease is not more widespread or fatal than it is. Add to this that in a far too considerable percentage of cases the water-supply is taken from wells sunk in the subsoil so contaminated, and we have another of the numerous directions in which Italian hygiene has yet to vindicate its character.

A Tribute to Italian Medicine.

The profession throughout Italy has been greatly gratified by the honour the Hungarian University of Budapest has just conferred on the most representative of Italian consultants, Dr. Guido Baccelli. On occasion of the millennary festivities of that seat of learning the Rector and Senatus Academicus have bestowed their honorary diploma on the head of the Roman medical school, as belonging "heroibus humanæ culturæ quæ vim efficacissimam ad salutem nostræ gentis sustentandam habuit" (to the heroes of that humane learning which has proved the most effective factor in maintaining the health of our race).

July 26th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera Bulletins.

THE whole number of new cholera cases during the last eight days has been 1871, or an average of 246 per day. In Alexandria there are still three or four fresh cases every day, and the persistent continuance of cholera ever since last December makes one doubt if there be not some local cause for its partiality. The municipality is now inviting the public to visit a new artesian well, sunk to the depth of 150 feet, which is to supply pure water, and there is no doubt that this is the direction in which Alexandria money should be spent. The Cairo intake of the water company is by no means above reproach, but it is ten times better than the supply from which long-suffering Alexandrians have been drinking all these years. Cairo has furnished 17 cholera cases during the eight days, but there have now been none for three

days. The arrest of the outbreak at the lunatic asylum confirms the theory of its local origin, and calls for the highest praise of the efforts of Dr. Warnock and others. In Gharbieh Province the numbers have fallen to an average of 48 daily, which is less than half what it was a week ago. This great improvement must be due to steady work and not to any rise of the Nile, for the canals in the Delta cannot be raised till August. In the Fayoum Province there is further good news, for the daily average has fallen from 80 to 49. Here, perhaps, the irrigation officials will be able to help, by opening as early as possible the Bahr Yusuf, which tradition says was made originally by the Biblical Joseph, and so flushing out the whole of the Fayoum canals with water from Upper Egypt. A further advantage will, of course, be that the subsoil and well levels will be raised, and the change will be for the better as regards quality and quantity. Excluding the military forces, and grouping the rest of Upper and Lower Egypt together, there is a daily average of 105 new cases, in addition to Gharbieh and Fayoum.

Cholera among the Troops.

The total number of cases from Assouan to Kosheh, the most southerly point, is so far: Egyptian army, 269 cases and 165 deaths; British army, 23 cases and 18 deaths. Surgeon-Lieutenant-Colonel Gallwey is with the Headquarter Staff at Kosheh and is moving the troops into the desert away from the river bank. The latest bulletins look as if the disease was being arrested in the south, as it was effectually at Korosko. Surgeon-Captain Whiston has been stopped at Assouan for cholera duty there. It is interesting to note that on exactly the same day cholera reached Kosheh from the north and the red water of the Nile arrived from the south. It is sometimes stated in Egypt that cholera has never been in the Soudan, but this is quite a fiction. In 1871, between June and November, it spread from Suakim and Tokar to Kassala, Berber, and Dongola, accounting for 1970 deaths. Again, in September, 1872, cholera travelled down the Nile from Dongola, reaching Korosko at the beginning of November.

Charkieh Province.

The cholera here, as in the rest of the Delta, is waiting to be driven out by the Nile flood. The tube wells started by the Sanitary Department last October have been a great success in supplying potable water to the people and it would be desirable to extend them universally. In Zagazig the Greek inhabitants do not seem to have enjoyed the same immunity from cholera as the bulk of the Europeans in Egypt, ten deaths out of 600 Europeans comparing very badly with about 200 deaths among 50,000 natives. It must be remembered that the poorer Europeans in the country villages do not live at a higher hygienic level than their Egyptian neighbours.

Cairo, July 22nd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Bicycle Racing not Injurious.

A CASE was brought to recover on an accident policy of insurance for injuries sustained while riding in a bicycle race. The policy contained a provision that it should not extend to, or cover, injury resulting from voluntary over-exertion, either unnecessary exposure to danger or to obvious risk of injury. The defendant contended that an injury sustained while riding in such a race was within the above exception and moved for a nonsuit on that ground. The trial court denied the motion and submitted to the jury the question whether the plaintiff was injured by unnecessarily exposing himself to danger or to the obvious risk of injury. The appellate court decided that as a matter of law it could not be said that the plaintiff was over-exerting himself or that he voluntarily exposed himself to danger by entering the race. Equally intelligent men might differ in opinion as to whether or not, by taking part in such a race, any risk of injury was necessarily incurred, and therefore the trial judge was right in leaving the decision of that question to the jury.

Tuberculous Residents in Hotels.

A Society for the Prevention of Tuberculosis makes the following recommendations for the guidance of hotel-keepers who entertain phthisical guests: "All parts of a hotel or boarding-house which are likely to be frequented by consumptive guests should be well supplied with cuspidors in which there should be at all times a germicidal fluid. This fluid should be changed once a day and the cuspidors should be thoroughly scalded with boiling water. In conspicuous places throughout the house, and especially in the rooms assigned to consumptive guests, there should be notices requesting guests never to eject sputa into any place other than the cuspidor and suggesting that a handkerchief should never under any circumstances be used for the reception of such sputa where a spittoon is at hand. When out upon the lawn or any place where a cuspidor is not accessible the sputa should be ejected into paper handkerchiefs, these to be placed upon returning to the room in a receptacle furnished for that purpose; such handkerchiefs should not be thrown into the ashbin, but burned by the chambermaid. After a room has been occupied by a consumptive it should be carefully cleansed before another guest is assigned. Where the rules already laid down have been observed, wiping the walls, floor, and furniture with a sponge dampened with a germicide solution, whisking the rugs with the same solution, and sending the sheets, blankets, and pillow-cases and counterpanes to the laundry will be all that is necessary. Where, however, no care has been observed and the consumptive has been careless about spitting on the floor or into linen, silk, or muslin handkerchiefs, or where the bed linen has been visibly soiled by broken-down tuberculous tissue, it will be necessary to carefully rub the walls with fresh bread and then wash them with a strong solution, to wash the floors and furniture with the same strong solution, to have all the bed-linen and blankets thoroughly boiled, and to have all the rugs and articles which can neither be subjected to strong germicidal solution nor boiled sent to a renovating place and steamed."

Antitoxin in Diphtheria.

The discussion of the value of antitoxin in diphtheria has been the absorbing topic of medical societies recently. But the most important contribution on that subject is the report of the American Pediatric Society collective investigation. It contains returns from 615 different physicians, of whom more than 600 have pronounced themselves as strongly in favour of the serum treatment, the great majority being enthusiastic in its advocacy. The cases included have been drawn from localities widely separated from each other, so that any peculiarity of local conditions to which the favourable reports might be ascribed must be excluded. The general mortality in the 5794 cases reported was 12·3 per cent.; excluding the cases moribund at the time of injection or dying within twenty-four hours it was 8·8 per cent. The most striking improvement was seen in the cases injected during the first three days. Of 4120 such cases the mortality was 7·3 per cent.; excluding cases moribund at the time of the injection or dying within twenty-four hours it was 4·8 per cent. The mortality of 1448 cases injected on or after the fourth day was 27 per cent. The most convincing argument, and to the minds of the committee an absolutely unanswerable one, in favour of serum therapy is found in the results obtained in 1256 laryngeal cases (membranous croup). In one half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe. Of the 533 cases in which intubation was performed the mortality was 25·9 per cent., or less than half as great as has ever been reported by any other method of treatment.

An American Physician Honoured in China.

Dr. Boudinot Currie Atterbury, Presbyterian medical missionary to China, has been honoured by the Emperor of China with the Imperial Order of the Double Dragon, Second Degree, a distinction never before conferred on any foreigner except the ruler of some friendly power. This mark is in recognition of the notable services rendered by the American physician in connexion with the work of the Red Cross Society during the late war. Dr. Atterbury was born in New York city and comes of a family long prominent in New York. He studied at Yale College, and took his medical course in this city under the direction of Dr. Frank H. Hamilton. After he graduated in Medicine from Bellevue Hospital Medical College, of the class of 1877, he went to China under the auspices of the Presbyterian Board, and was assigned to missionary duty in the city of Pekin. He there assisted in the establishment of the Ah Ting Hospital. While there his work was brought to the attention of the Emperor and the Royal family. He afterwards went to Tientsin, where he is at present.

Association of Opticians.

The opticians of Philadelphia have formed an association

to be known as the Optician Association of Pennsylvania. The object of the association is to encourage the opticians to perfect themselves in the study of optics and the scientific correction of errors of refraction and the proper fitting of glasses and to discourage the indiscriminate sale of spectacles by ignorant persons.

July 18th.

Obituary.

HENRY MOORE BOWMAN, M.D., M.R.C.P. LOND.

WE regret to have to record the sudden death of Dr. Bowman from heart disease. On the night of July 16th he retired to rest apparently in the best of health, and the following morning was found dead in his bed, having passed away quietly in his sleep. At the post-mortem examination his heart was found to be much dilated, the walls thin, although the organ was larger than normal, weighing 14½ oz., and the muscular substance pale and soft. The inquest was held on July 18th, when Mr. Jackson Clarke, who had conducted the necropsy, stated that, in his opinion, death was due to syncope, the failure of the heart being fully accountep for by the morbid conditions. A verdict of "Death from natural causes" was returned. Dr. Bowman was a son of the Rev. Isaac Bowman, vicar of St. Paul's, New Southgate. Born in Westmorland in 1866 he received his education entirely at home, under the supervision of his father. The absence of competitors gave him little chance of judging of his own powers, and the high position which he at once took among the men of his year on entering as a student at St. Bartholomew's Hospital in 1885 seems to have first led him to hope that he might achieve distinction in his profession—a hope which, as subsequent events showed, he was fully justified in entertaining. He qualified in 1889 and in the same year was awarded the Sir George Burrows prize in pathology and graduated as M.B. at the London University, taking the gold medal and scholarship in forensic medicine and other honours. The M.D., in which he qualified for the gold medal, followed in 1891 and the M.R.C.P. in 1892. The foundation of his clinical knowledge was laid at St. Bartholomew's Hospital, where he held the offices of house physician and casualty physician; and at the National Hospital for the Paralysed and Epileptic, Queen-square, as house physician he received a thorough grounding in diseases of the nervous system, a branch of medicine of which he was particularly fond and in which he had already distinguished himself. At the time of his death he was assistant physician to the Royal Hospital for Diseases of the Chest, City-road, and assistant demonstrator of physiology and pharmacy in his old school. As a teacher he was most popular and the chief element in his success with his pupils was that same thoroughness which had always characterised his work as a student. His early death, just at the commencement of what gave every promise of being an unusually useful and brilliant career, comes as a great shock to a wide circle of friends and leaves the profession poorer by the loss of one who, had he lived, would undoubtedly have added to its fame.

MICHAEL FRANCIS KELLY, L.A.H., L.M. DUBL., L.F.P.S. GLASG.

WE regret to announce the death of Mr. Kelly of Felling, in the county of Durham, which took place on July 16th after only a few days' illness. Mr. Kelly, who was in his forty-second year, was a native of Limerick, and studied medicine in Dublin, where he became qualified in 1876 as Licentiate of the Apothecaries' Hall and Licentiate in Midwifery; in 1880 he was admitted as a Licentiate of the Faculty of Physicians and Surgeons of Glasgow. About seventeen years ago he settled in practice at Felling, and was medical officer of health for the last ten years. Mr. Kelly was greatly respected and esteemed in his district; his help was ever ready for all, and the poorer class of his patients found in him a generous friend. The very large attendance at the funeral and the general display of mourning showed how highly the memory of the deceased was honoured in the town.

THE BRITISH MEDICAL ASSOCIATION.

MEETING AT CARLISLE.

THE sixty-fourth annual meeting of the British Medical Association was opened at Carlisle on Tuesday, July 28th, under the presidency of Dr. Henry Barnes, J.P., F.R.S. Edin., Physician to the Cumberland Infirmary.

The Carlisle authorities, who have organised the meeting, deserve great credit for their cordial hospitality to the members of the Association and for the general arrangements which have been made for the comfort of the members in all respects.

It is expected that the attendance of members will total between 700 and 800, about the same number that attended the last provincial meeting of the Association at Bristol. Of course it was not to be expected that the numbers present would be anything approaching that of London last year, at which, we believe, some 3000 members attended.

On Monday evening Dr. Henry Barnes, the President-elect, entertained at dinner in the County Hotel the council of the Association, the local committee, the presidents of sections, and other friends. Among those who accepted invitations were the Bishop of Carlisle, the Suffragan Bishop of Barrow-in-Furness, the Mayor of Carlisle, Sir Dyce Duckworth, Dr. Ward Cousins, Sir Willoughby Wade, Professor Gairdner, Sir Joseph Ewart, Professor Ogston, Dr. Halliday Croom, Dr. Finlayson, Dr. H. P. Cholmeley, Dr. Little, Professor Delépine, Sir Thomas Grainger Stewart, and others. There were only two toasts proposed, The Queen and The British Medical Association. In proposing the latter Dr. Barnes gave a brief history of the Association, connecting with its rise the name of John Hodson, a well-known Cumberland practitioner. Dr. Ward Cousins replied. Dr. Graham of Carlisle sang and played a violin solo, thereby adding to the pleasures of a very enjoyable evening.

The special service in the Cathedral on Tuesday morning consisted of shortened Matins, with a sermon by the Bishop of the diocese. The cathedral was well filled, among the clergy and officials present being the Suffragan Bishop of Barrow-in-Furness, the Dean, Canon Richmond, the Chancellor, and the Registrar. The Mayor and Corporation were also in attendance. The Bishop's sermon was commendably brief, the whole service not occupying more than an hour. At its conclusion a collection was made, the proceeds of which were handed over to the benevolent fund of the Association.

The general and sectional meetings are well "housed," and have the great advantage of being within a few minutes' walk of each other. In fact, many a larger town than Carlisle could not have afforded such opportunities for keeping the various sectional meeting places in such a compact compass.

Not the least interesting part of Dr. Barnes's Presidential Address was his short historical *résumé* of the lives and work of the Cumbrians who had attained to a distinguished position in the medical world. Such annals of medical science are not kept with sufficient strictness or with anything like regularity. In no other profession is there such an absence of all the details of the evolution of learning. There are some well-known names always quoted, but there are others which never receive mention. Such summaries as Dr. Barnes gave at the first general meeting of the British Medical

Association at Carlisle are of more than sentimental value. They allot to men who would otherwise remain unknown their due share in movements with which, as a rule, only the name of some one fortunate person is associated. For example, how many of us really knew the value of Heysham's work until Dr. Barnes spoke of it? yet his name should certainly be included with those of Graunt, Petty, Halley, and Farr as one of the founders of the science of medical statistics.

The space devoted to the exhibits of the annual museum was decidedly not large, but it must be said that the Drill Hall in which it was held was favourably adapted to the purpose. In the first place it was well lighted, and secondly it was located within a very short distance of the reception-rooms and other buildings where the general and sectional meetings were held. The exhibits were well grouped and tastefully arranged in spite of the somewhat congested character of the individual stalls, the space allotted to each being, as might be expected, on a much smaller scale than at the meeting held last year in London in the new and commodious Examination Hall on the Embankment. The exhibition was divided into three sections, as follows:—A. Food and drugs, including prepared foods, chemical and pharmaceutical preparations, antiseptic dressings, &c. These we notice in the present issue of THE LANCET. B. Medical and surgical instruments and appliances, books, diagrams, charts, &c. C. Sanitary and ambulance appliances. A noteworthy feature was the comparatively increased allotment of space to the exhibition of appliances such as invalids' beds, hospital beds, operating tables, &c., which were included in the exhibits under C. This section attracted considerable interest. The pathological museum included a great number of interesting histological preparations and an admirable collection of bacteriological specimens. In the same section were some excellent pathological models, lent by the University of Aberdeen, and some microscopic sections through the whole thickness of the heart and kidney contributed by Professor Delépine. Dr. W. R. Parker also showed an interesting series of Photographs of Cretins illustrative of thyroid treatment, while a very excellent and complete series of Clinical Photographs, shown by Mr. Thelwall Thomas of Liverpool, excited considerable interest.

Professor Delépine's presidential address in the Section of Pathology and Bacteriology raises a number of interesting questions in connexion with the subject of medical education. There is much to be said in favour of his recommendation that practical bacteriology should have a higher place in the course of study than it holds at present, for though the student may pursue the subject but a little way he inevitably acquires a certain amount of manipulative dexterity, and by familiarity with the preparation of pure cultures even of ubiquitous non-pathogenic organisms it becomes comparatively easy for him to realise how large a part these minute objects play in the causation of morbid processes. It is most desirable that a practical subject of this kind, which is so intimately bound up with the etiology and diagnosis of many diseases, and is of supreme importance to the operating surgeon, should be thoroughly grasped by all practitioners and should not receive a merely formal and tacit recognition.

In the Section of Public Medicine Sir Joseph Ewart laid stress upon a point often urged in these columns, that the practice of making public health appointments on a system involving annual or, at any rate, frequent re-election is a monstrous injustice to the officers thus engaged. The system is not only calculated to handicap the independence and integrity of the officer, but to import into his election all sorts of questions outside the one great question, which is whether the selected man is the man best fitted by temperament and scientific attainments to discharge the duties of a post upon which the physical well-being of his fellow citizens depends so nearly. We hope that Sir Joseph Ewart's words will be read and weighed in quarters where practical results may follow upon them.

The subject of the "Ethics of Advertising" is one which Dr. Bruce, the direct representative for Scotland, will introduce to-day (Friday). We commend to his notice a good topical instance of the practice which is new to us. In a certain shop in Carlisle there is a contrivance shown in the window for taking the shape of the head when requiring a new hat. This is how it is introduced to the general public: "Shapes of heads taken with the 'Conformateur.' Local doctors." Here follow, spread out in the window, some twelve or fifteen pieces of cord, each labeled with the name and address of the medical man whose head the cord is shaped to represent. Among those whose names and addresses are given are the following:—Dr. Barnes, Portland-square (apparently the new President of the Association); Dr. Little, Maryport; Dr. Highet, Workington; Dr. Maclaren, Portland-square; Dr. Palm, Wigton; Dr. Macdonald, Kirkoswald, &c. We give the title "Dr." in all cases, as all are so inscribed on the cords. Of course, these gentlemen are quite ignorant of the use that is being made of their names and will take care that it is not continued; but the possible developments of this ingenious idea are enormous. At the next meeting of the British Association enterprising tradesmen may commend their goods by patterns in their windows of Mr. A.'s hat, Mr. B.'s boots, Dr. C.'s socks, or even Sir X. Y. Z.'s trousers.

In the Section of Psychology Dr. J. A. Campbell, superintendent of the Cumberland and Westmorland Asylum, delivered a long and able introductory address in which, allowing that the highest study of mankind is man, he not inaptly pointed out that when the study of man is left to the hard-worked medical officer of the public lunacy services it is left to one whose environment tends to make hard work go against the grain. It is all the greater honour to these men that they have on many occasions placed upon record admirable scientific work. We heartily agree, also, with the concluding words of Dr. Campbell's address, in which he commends the action of the London County Council in paying a properly skilled and trained pathologist to exclusively devote his time to pathological research, the material being afforded by the public lunatic asylums. This is an admirable step. If a combination of small asylums unable to afford the services of a separate pathologist were to combine and retain the services of a joint scientific expert we believe that the medical study of lunacy would be thereby benefited.

The garden parties given by Mr. and Mrs. MacInnes of Rickerby and Mr. and Mrs. Chance Morton on Tuesday and Wednesday respectively were much appreciated by the members.

Dr. McKenzie Davidson of Aberdeen was announced to give a demonstration of the apparatus necessary to produce "x" rays to the greatest advantage in the rooms of the Young Men's Christian Association at 12.45 on Wednesday, and Dr. Macintyre of Glasgow was to follow at 1 o'clock with an "x" ray exhibition of photographs. Dr. Macintyre was not able to attend, however, until Thursday, but Dr. Davidson gallantly filled the breach and gave a very successful demonstration, in which he included an exhibition of some excellent photographs taken by himself and a series of photographs of both soft and hard tissues taken by Dr. Macintyre. Dr. Davidson

showed some really excellent work with the screen (barium platino cyanide) and he communicated some of the latest methods adopted by Professor Roentgen himself, with whom he had recently had an interview. The tube he used was one employed by the distinguished Austrian professor, and was cylindrical in shape, but the secret of working it and other tubes was shown to be entirely dependent upon the degree of vacuum. This could be adjusted by placing the dischargers of the coil about two and a half centimetres apart and warming up the vacuum tube so that the discharge just took place through it. On the height of the vacuum increasing again by the bulb cooling down, the fact was indicated by discharge occurring between the poles of the coil. Warming again, however, soon restores the maximum efficiency of the tube. The results on the fluorescent screen were certainly most brilliant.

Visitors to Carlisle are sorely tried by the large number of ragged urchins (for the most part shoeless and hatless) who are allowed to pester and importune pedestrians in a most flagrant manner in the main streets adjoining the station. Such a state of affairs would not be tolerated by the London police for a moment, and it is inconceivable why the Carlisle police permit it. These urchins are engaged in selling, or trying to sell, either local papers or wax matches. They apparently do not buy any other stock. The occupation is a harmless one in itself and has even a creditable appearance, but it is a cloak for begging in a most persistent manner. These children follow the visitor up and refuse to be denied. Nor do they as a rule hunt singly, generally a batch of four or five surround their victim. This kind of thing may add an Italian flavour to a visit to Carlisle, but Carlisle is a beautiful old English capital and needs no such exotic charms.

It will be seen that the invitation which has been received by the Council from the Canadian Branches that the Association should meet in Montreal next year has been accepted. We congratulate the Association on this choice of *locale*, for Canada is not only distinguished among our colonies for its loyalty and good feeling towards the mother country, but the medical work of the Dominion is sound, well-ordered, and enthusiastic. We are certain that those members of the Association who can find time to go to Montreal will receive the warmest welcome.

It is our very pleasant duty to put on record in these columns the courtesy and kindness of Mr. Francis Fowke, the general secretary of the Association, towards our representatives, and also the energy and the admirable organisation he has displayed in conjunction with the local executive committee in all the arrangements of the meeting.

THE GENERAL MEETINGS.

THE EXTRAORDINARY GENERAL MEETING.

AN extraordinary general meeting was held at 10 o'clock on Tuesday morning, July 28th, in the New Public Hall, at which the resolution passed at the extraordinary general meeting at Birmingham on July 13th was confirmed by a large majority. The resolution passed at Birmingham provided, among other things, for "the grant or expenditure of such sums of money out of the funds of the Association for the promotion of the medical or allied sciences or for the defence, promotion, or maintenance of the honour or interests of the medical profession by such means and in such manner as the Council of the Association may think fit, including, in particular, taking or defending legal proceedings and promoting or opposing Bills in Parliament." It is evidently, therefore, the wish of the members of the Association that their body should undertake the duties of a medical protection and defence society.

FIRST GENERAL MEETING.

The first general meeting was held in the new Public Hall on Tuesday afternoon, the President of the Council, Dr. WARD COUSINS, presiding. He was supported on the platform by many members of the Council, and the hall was fairly crowded. The President-elect, Dr. Henry Barnes of Carlisle, was on the right of the chairman.

Dr. WARD COUSINS, in opening the proceedings, referred in sympathetic terms to the loss sustained by the Association and by the whole medical world in the death of Sir John Russell Reynolds, their late President, and said that the Council, on behalf of the Association, had tendered to Lady Reynolds their sincere regret at the death of her distinguished husband, to which they had received a very kind reply.

Dr. HENRY BARNES was then installed as President amid loud cheers. In acknowledgment of these he thanked those present for the cordial reception they had accorded him. He then read a telegram received from Lady Russell Reynolds: "Offer my best wishes and congratulations to the President of the British Medical Association and trust the meeting may be very successful.—Lady Russell Reynolds, 38, Grosvenor-street."

Dr. WARD COUSINS next moved the adoption of the report of the Council, and referred to the great progress being made by the Association in all parts of the world. Their work was increasing rapidly and their vitality also. They were awakening to their great power, and in the various branches of the Association lay their main source of life. They must work shoulder to shoulder and not be disunited. They must close their ranks, and then they could depend upon it that better days would dawn upon the medical profession.

At this point a rather extraordinary incident occurred. The President requested strangers and reporters to withdraw. Two reporters who had been engaged by us from the office of the *Carlisle Journal*, did not withdraw as they had a ticket admitting them specially as reporters for the medical press, which ticket was made out to THE LANCET by name and was signed by the general secretary. The Council, however, decided against publicity even in the medical press and excluded not only our two reporters but a third representative of THE LANCET having no connexion with any journal whatever save THE LANCET. With regard to this proceeding we have only to say that it is our duty to the profession to report such things as concern the profession as a whole, while we have no desire to pry into the private affairs of the Association, and all who know us know that we have ever manifested this spirit in our reports of the proceedings at the meetings of the British Medical Association, and in those of other bodies interested in the welfare of the profession. We do not see why the Council should have matters to debate which they do not think it advisable that the profession should learn, but we are willing to believe that such matters are of no importance to the body of the profession, for the Council would surely not in these enlightened days put themselves in the false position of concealing what ought to be known.[1]

PRESIDENT'S ADDRESS.

[Dr. BARNES commenced by thanking the Association for the honour it had conferred upon him. He then welcomed the Association in the name of the city and the members of the Border Counties Branch, and made graceful reference to the late Sir J. Russell Reynolds's presidential address last year. After giving a short general history of Carlisle he passed to the main subject of his address—namely, the medical history of the city, saying:]

I shall have to tell you of those who have practised our art, of those eminent Cumbrians who have contributed to the advance of our science, and of the conditions of life which existed at various periods. I have already alluded to the Roman occupation. The question as to whether the Roman armies were provided with medical officers is one which has not received much attention from archæologists. In many of the works on Roman antiquities there is no allusion whatever to it. There does not exist in the Roman classics any very distinct reference to the subject. The practice of medicine was not much encouraged in the early days of Roman power and its professors were not held in high esteem. In times of war the devastation produced by sickness and disease was found to be greatly more formidable than the losses produced by conflict with the enemy. When the Emperor Septimus Severus attempted to subdue the whole of

[1] The Editor of the *British Medical Journal* has courteously sent us an advance proof of the report of this meeting that is to appear in his columns.

Scotland about the year 208 he led an army of not fewer than 80,000 men across the Forth, marched them north, and then returned to York. Although the enemy were never met in open fight the Emperor is stated to have lost not fewer than 50,000 of his troops in this campaign. Such an experience would naturally have its influence in suggesting to a people who were advancing in many branches of knowledge that the strength and success of their armies would be greatly increased by having medical officers to watch over the health of their soldiers. Some modern discoveries in this part of Great Britain and elsewhere have demonstrated that in the time of the Empire, at all events, the armies of Rome were provided with a medical staff. Among the many monumental tablets which have been discovered along the course of the great Roman wall there is surely none more interesting to us than one which was discovered a few years ago at Housesteads. The inscription shows that it was erected by the first cohort of the Tungrians to the memory of their "medicus ordinarius." This cohort distinguished itself under Agricola at the battle of Mons Grampius, and was afterwards engaged in the erection of a portion of the more northern Roman wall of Antoninus. At a later period, probably under the reign of Marcus Aurelius, it became stationed at Castlesteads in this county. According to the Notitia this cohort was stationed at Borcovicus (Housesteads), where the monument alluded to as well as several others were erected by it. The translation of the inscription, according to the rendering of the learned historian of the Roman wall (Dr. Bruce), is as follows: "Sacred to the Gods of the Shades below. To Anicius Ingenuus, Physician-in-Ordinary of Cohort the First of the Tungrians. He lived twenty-five years." The elaborate nature of the carving on this monument affords strong evidence of the esteem and respect in which this young physician was held by his comrades. It is said to be more ornamental than many of the altars raised by this and other cohorts to the worship of their deities, and his name is worthy of mention to-day as that of the earliest member of our profession of whom we have any record as having lived and practised in the Border Counties.

The President then gave an account of leprosy and lazar houses as they existed at Carlisle, of how under Edward I. Parliament met at Carlisle to consider river pollution, and how the same Edward I. died about six miles from Carlisle in 1307. He gave some interesting extracts concerning medical fees in the seventeenth century, concluding with the following example of club or contract practice. In the diary of Archdeacon Nicolson, an eminent local ecclesiastic who soon afterwards became Bishop of Carlisle, there is an entry under date of 1698 to the effect that the Archdeacon contracts with a Carlisle physician for professional attendance upon himself and his family for the sum of two guineas a year.

[Continuing, Dr. Barnes referred to the various epidemics of plague which devastated the district and gave a short history of the evolution of sanitary science in Carlisle.]

The fact that Carlisle was in former times a walled city, in which the inhabitants were compelled to dwell within the walls, that large numbers were aggregated together in courts and narrow lanes, and that it was a centre upon which a great number of roads converge, bringing tramps and vagrants from all parts, rendered the city particularly liable to outbreaks of infectious disease. Epidemics of typhus fever were extremely common. The last severe epidemic was in 1874–75, and 126 deaths were registered as due to this outbreak. During the last twenty years the disease has on several occasions been imported, but its spread has been speedily checked. Enteric fever is much less prevalent than formerly. During the first seven years after the establishment of a duly constituted sanitary administration there were 99 deaths registered as being due to this cause. In the seven years following the number of deaths was 63, and during the last seven years it has fallen to 15. He concluded this section of his address with some remarks upon small-pox and vaccination, the water-supply, and recent sanitary improvements. He then passed to consider the

MEDICAL WORTHIES OF CUMBERLAND.

In the last century several Cumbrians obtained distinguished positions as physicians in London. Dr. John Coningham was appointed Physician to the London Hospital in 1742; Dr. Addison Hutton was elected Physician to St. George's Hospital in 1736; Dr. John Relph became Physician to Guy's Hospital in 1789; Dr. John Leake was the founder and first physician to the Westminster Lying-in Hospital: Dr. William Woodville, an accomplished medical botanist, was Physician to the London Small-pox Hospital; and Dr. John Walker was the first resident vaccinator of the Jennerian Society. The most distinguished Cumberland physicians of that period were Dr. William Brownrigg and Dr. Heysham. The former was distinguished both as a chemist and as a physician. He began practice as a physician at Whitehaven in 1741. His researches in several particulars were parallel with those of Priestley, Black, and Cavendish. He contributed several papers to the Philosophical Transactions, was a Fellow of the Royal Society, and received the Copley medal for some chemical inquiries. He was a mental philosopher of great power, and his scientific attainments were acknowledged by the most distinguished men of the day, by whom he was held in high esteem. Dr. Heysham, although not a native of Cumberland, spent the whole of his medical life here, and his name is widely known as that of a distinguished physician. Born at Lancaster in 1753, he settled in Carlisle in 1778, and died in 1834. He had only been here a few months when he meditated a census of the inhabitants and the framing of bills of mortality. By carefully recording from week to week and month to month the births, marriages, diseases, and deaths of the people he gradually accumulated the data upon which the Carlisle tables of mortality were based. At that time life assurance was in its infancy, and the value of Heysham's labours may best be exemplified by a reference to the serious errors which arose from incorrect observations and records made elsewhere. The credit of having drawn up the first English mortality tables belongs to a Unitarian preacher, Dr. Price of Northampton. He employed the registers of births and deaths of the town in which he lived, but in constructing his tables he altogether overlooked the fact that a considerable number of Baptists lived in the town who did not sanction infant baptism. This oversight led him to the conclusion that the population of Northampton was stationary, and he seriously under-estimated the life-duration of its inhabitants. Two illustrations of the importance of this error may be quoted. The Equitable Society, which first used the Northampton table, found that their mortality was one-third less than the table predicted. The Government also adopted the table as the basis of its annuity schemes, and the same error which gave the Equitable and other societies one-third too much premium induced the Government to grant annuities which were larger by one-third than they should have been for the amount charged, and before the error was rectified two millions of money were lost to the country by these annuity transactions. The value of the Carlisle tables was speedily recognised, and one by one the leading life assurance companies, both in this country and in America, adopted them as the basis of their calculation. Professor De Morgan in 1830 pronounced them to be the best existing tables of healthy life which have been constructed in England, and Dr. Farr in the fifth report of the Registrar-General, 1843, says: "I avail myself of this opportunity to pay my humble tribute to the fairness of the Carlisle tables; to Dr. Heysham, who collected the facts with so much care; and to Mr. Milne, who cast these facts so judiciously to the purposes of life insurance." During the last few years these tables have been to a great extent superseded by the "English life tables," based on thirty years' observation, and on data obtained from the records of mortality over the whole kingdom. A comparison, however, of the two tables show that they differ very little from each other, and the striking fact remains that all properly conducted offices which adopted the Carlisle tables have met their engagements and for the most part had very large surpluses to spare. In addition to his work in connexion with the tables of mortality, Heysham has many other claims to consideration. Three years after settling here he succeeded in establishing a public dispensary for providing the sick poor with the advantages of medical relief. He published an essay on Gaol Fever, founded upon his observations during an epidemic which prevailed in this city in 1781. About 600 persons were attacked and nearly 1 in 10 of those attacked died. The treatment which he adopted and successfully pursued appeared to differ from that which had hitherto been the usual practice. Previously to that period few British physicians had the courage to order good food and good wine in cases of typhus fever. Instead of bleeding his patients Heysham found that by a copious and liberal use of tonics, cordials, stimulants, wine, and bark the pulse became stronger, the thirst and pain in the head abated, the delirium

was removed, and the patient got refreshing sleep. It was fifty years later before these views in regard to the treatment of fevers became generally accepted. Heysham was also a keen naturalist, and his researches in natural history obtained for him the distinction of being elected a member of the Linnæan Society, a distinction which was quite unsolicited and quite unexpected.

[Dr. Barnes then referred to several of Heysham's contemporaries, such as Thomas Blamire, Dr. Hugh James (the blind physician), Dr. R. Harrington, Sir Joseph Gilpin, Sir Simon Howard, and Dr. Thomas Barnes.]

Dr. Thomas Addison was descended from a family of yeomen who had settled for many generations at Lanercost in this county. He was born in 1793 and became full physician to Guy's Hospital in 1837. Although his fame with posterity will mainly rest on his discovery of the previously unsuspected disease of the suprarenal capsules which now bears his name, his contributions to the anatomy and pathology of the lung, to pneumonia, pneumonic phthisis, and phthisis are of scarcely less value and originality. Dr. Wilks says that the essay on suprarenal disease is as nothing compared with what he did during a long series of years in the elucidation of phthisis and some other diseases. It was not a mere scientific discovery but his powerful lectures which impressed the last generation of Guy's Hospital men. He died in 1860 and was buried at Lanercost Abbey. On the western wall of the chancel there is a tablet to his memory.

Among those of a later generation time will not permit me to say much, but the record of their work shows that they are no unworthy successors of the distinguished men of whom I have been speaking. The late Mr. William Bensfield Page, the first surgeon of the Cumberland Infirmary, was widely known as an experienced surgeon and held a leading position in the North of England for a long period. He was one of the first of British surgeons to perform the operation of excision of the os calcis and was among the early surgeons to adopt ovariotomy. His brother-in-law, Dr. Goodfellow, was for a short period physician to the Cumberland Infirmary and afterwards became physician to Middlesex Hospital in London. Dr. Henry Lonsdale, the biographer of Goodsir and Knox, the anatomists, and the author of many other biographies, succeeded Goodfellow as physician to the Cumberland Infirmary and held the appointment for twenty-two years. Dr. Robert Elliot, a distinguished sanitary reformer, the first medical officer of health for Carlisle, was for many years coroner of the city and took an active interest in all that related to its welfare. Dr. W. H. Dickinson of Workington was the first to diagnose and record an outbreak of trichinosis in the human subject in this country. Dr. Michael W. Taylor of Penrith, widely known as a distinguished archæologist, was also a prominent member and the second President of the Border Counties Branch. He contributed many papers to our meetings, and to his clinical sagacity and acute powers of observation is owing the knowledge that epidemics of enteric fever and scarlet fever may be caused by a contamination of the milk-supply—a knowledge which has already been of such immense service in the prevention of disease.

[The President concluded with some remarks upon the part taken by the British Medical Association in the cause of medical reform, and referred in eulogistic terms to the work of the late Dr. Sibson].

THE SECOND GENERAL MEETING.

The second general meeting was held in the New Public Hall on Wednesday afternoon, the PRESIDENT being in the chair.

Dr. SAUNDBY of Birmingham was elected President of the Council for the next three years.

It was agreed that the next meeting of the Association should be held in Montreal, a proposition that it should be held at Portsmouth being negatived. A proposal was made that the Council should arrange for the business part of the meeting to be transacted in some part of the United Kingdom and the scientific part in Montreal.

A vote of thanks was accorded to Dr. Ward Cousins for the able manner in which he had presided over the Council for the past three years and for his great attention to the affairs of the Association, and it was unanimously agreed that he should be elected a Vice-President for life.

Sir DYCE DUCKWORTH then delivered the Address in Medicine, which we give in another place.

The notices of motion adjourned from the previous day were then discussed.

Sir WILLOUGHBY WADE moved the enactment of sundry new by-laws, of which the essence was that the managing body of the Association should be a committee of eleven, and that they should be paid for their labours.

Mr. LAWSON TAIT moved as an amendment the following: "That the question of the amendment of the government and executive management of the Association be referred to a committee to be appointed for the purpose by the Council."

After some discussion Sir WILLOUGHBY WADE withdrew his motion and Mr. Lawson Tait's amendment became the substantive motion and was carried. It was further agreed that the committee should consist of nine members, of whom four should be elected from outside the Council.

Mr. TAIT withdrew the motion of which he had given notice with reference to the case of Kingsbury *v.* Hart, explaining that he did so on account of the excellent manner in which Dr. Kingsbury had fought his own case at the general meeting on the previous day.

THE SECTIONS.

The sectional work commenced on Wednesday, July 29th, in all the sections.

MEDICINE.

WEDNESDAY, JULY 29TH.

Address by the President of the Section.

Dr. GEORGE F. DUFFEY, Physician to the City of Dublin Hospital, in the course of some interesting historical notes said: In taking the chair at the Section of Medicine at this the sixty-fourth annual meeting of our Association permit me to say that at no previous annual meeting (with the exception of three of the four successful meetings that have been held in Ireland) has the presidency of this section been filled by a physician practising in the sister island. In having been appointed to this honourable post on the present occasion I feel, therefore, that a compliment has been paid in the first place to the Irish School of Medicine, which I hasten to acknowledge, and I have also to thank the Council of the Association and the officers of the Border Counties Branch for having selected me as the person through whom this honour has been conveyed when many a senior and abler representative might have been chosen. Considering the amount of work before us I believe that I shall both meet your inclination, and at the same time best defer to the hint that has been given to Presidents of Sections, by not occupying your time by the delivery of a formal address. My prefatory remarks shall, therefore, be very brief. But, having already referred to the meetings of the Association in Ireland, it may not be amiss to mention that it was at the first of these—namely, the thirty-fifth annual meeting that was held in Dublin in 1867 under the presidency of that distinguished physician and teacher, William Stokes, of whom Englishmen as well as Irishmen are so justly proud—that the scientific work of the annual meetings was for the first time arranged in Sections. The "Daily Journal" had its origin at the same meeting, and that important and useful committee which owes its initiative to the Metropolitan Counties Branch, namely, the Parliamentary Bills Committee, and to which the Association and the profession is so largely indebted, was then also constituted on its present basis. In this connexion it would be an omission on my part if I did not remind you that in the same year (1867) the present able editor of our *Journal* first took charge of it. Except for a brief interval in 1869–70 Mr. Ernest Hart has since occupied the editorial chair; and what he has done for the Association, the profession, and for the public generally by his management of the *Journal* is too well-known and too widely recognised for any words of mine to add to his deserts. At the date of the first Dublin meeting the number of members on the books of the Association was 3082. At the present time Mr. Fowke informs me that the number is 17,000. The *Journal*, too, has increased almost alarmingly in size. From being, as it was in 1867, an issue of 1398 pages, I find that the two volumes for last year, exclusive of the periscope, consisted of no less than 3080 pages. When the Association, in 1887, met for the second time in Dublin innovations were again made at the instance of the local executive committee in the conduct of the business of that annual meeting. Among these changes were having the general meetings in the afternoon and the sectional meetings in the forenoons. This procedure was found satisfactory, and has since, as you are aware, been followed.

In making the foregoing remarks I trust that it will be understood that I do so solely with the object of showing that the members of the Association in Ireland take as warm an interest in its work and organisation as their fellow members in England, in Scotland, and in the Colonies do; and that, like them, we are proud to belong to a body which has done, and is capable of doing, so much for the benefit of our profession and for the advancement of medical science. Discussions on subjects connected with scientific medicine at the annual meetings date from the thirty-third annual meeting, which was held at Leamington in 1865. These discussions then took place at the general meetings. It is interesting to note that the first subject thus discussed was introduced by Dr. (now Sir) B. W. Richardson, on the question, "Is there any Foundation for the Hypothesis of the Origination of Disease by Zymosis or Ferment? The subject of cancer and its origin and the measures that should be adopted by the Association for securing an improved position to medical scientific witnesses in courts of law were then also discussed. It would appear that the selection of special subjects for discussion in the different sections at the annual meetings first came into force at the forty-sixth annual meeting of the Association, which was held in Manchester in 1877. The discernment shown by the suggestion and adoption of such a course has been evidenced by its success. It is patent that at our annual gatherings, when a large number of members from all parts of the kingdom and from abroad meet with each other and with many welcome foreign guests, a subject of general interest introduced by someone who has specially studied it is likely to be more attractive and of more scientific importance than an elaborate report of a rare case, or even a learned essay on some particular subject of a more or less personal interest to the writer. I by no means undervalue such contributions, but would merely suggest that experience has shown that such topics are perhaps more suited for discussion at the Branch meetings, or at one or other of the numerous metropolitan or provincial societies, than at our annual meetings.

On the present occasion I think our Section may be congratulated on the subjects that have been selected for discussion and may well feel gratified by the fact that each subject is to be introduced by a leading representative of the Edinburgh, London, and Dublin Schools of Medicine. To apply to the chief work of this Section words recently used by an eminent surgeon in another connexion,[1] it may be said with equal truth that discussions of the kind now about to be opened "afford an opportunity not so much of presenting original work as of reviewing the present standpoint of medical science in some particular department, of criticising the advances that have been made, of seeing what of these advances are good and what are of doubtful value, and thus of furnishing a basis for further work." On a wall in the medical department of the Oxford Museum—a unique erection, for the conception and carrying out of which the University is indebted to one of our most esteemed vice-presidents, Sir Henry Acland, Bart.—there is the following inscription: Τρόφιλος ἰατρὸς ἐρωτηθεὶς, τίς ἂν γενοιτο τελειος ἰατρός· Ὁ τὰ δυνατὰ ἔφη και τὰ μὴ δυνατὰ δυνάμενος διαγιγνώσκειν. In our discussions upon the three important subjects we are now about to consider may it happen that while we calmly criticise theories we may elicit fresh information and make additions to our knowledge, and so come to realise with Trophilus that the "perfect" physician is indeed he who is able to distinguish between what can and what cannot be done.

A long and interesting discussion on the Diagnosis and Treatment of Cardiac Failure, with special reference to passive exercise, active exercise, and baths, was introduced by Professor Sir T. Grainger Stewart (Edinburgh). A *résumé* of this will be given next week.

Dr. HARRY CAMPBELL (London) read a paper on Perspiratory Exercises in the Treatment of Disease.

Dr. HERBERT SNOW (London) read a paper on Opium and Cocaine in the Treatment of Cancerous Disease.

SURGERY.

WEDNESDAY, JULY 29TH.

Dr. ALEXANDER OGSTON of Aberdeen, the President of the Section, was in the chair.

[1] Watson Cheyne: Lettsomian Lectures, THE LANCET, Feb. 15th, 1896, p. 397.

The subject of the surgical treatment of

Prostatic Hypertrophy

had been selected for discussion, and it was opened by Dr. DAVID MACEWAN of Dundee. He said that as long ago as 1856 Mercier had suggested the operative treatment of an enlarged prostate which was causing obstruction to the outflow of urine. The method proposed was to remove part of the enlarged gland through the urethra—"urethral prostatectomy." Then Sir Henry Thompson and Mr. Reginald Harrison had advocated perineal section and drainage. A further step had been suggested by the occasional accidental removal of a pedunculated prostatic outgrowth during an attempt to grasp the stone in the lateral lithotomy. This led to perineal prostatectomy. A little later the suprapubic incision was employed, and later still the "combined method" of Bellfield of Chicago, of Nicoll of Glasgow, and of Alexander of New York. But whatever form of prostatectomy was employed the mortality was still high, and even now reached 20 per cent. Later still a newer method had been brought forward, which depended on the obliteration of the function of the testis. In 1893 Professor White of Philadelphia read a paper before the American Surgical Association, in which he suggested that the testes had an influence over the nutrition of the prostate similar to that exercised by the ovaries on the uterus, and that just as oöphorectomy leads to the diminution in size of the fibroids of the uterus so would castration lead to atrophy of an hypertrophied prostate. In May, 1895, Professor White read a paper in which he gave the results of 111 cases in which removal of the testis ("orchectomy") had been done for the purpose of causing the atrophy of an hypertrophied prostate. Of these 111 cases, in 82 per cent. rapid atrophy was said to have occurred, in 52 per cent. cystitis had either disappeared or had been greatly lessened, in 66 per cent. there had been a return of vesical contractility, in 83 per cent. there had been marked amelioration of troublesome symptoms, and in 46·4 per cent. there had been a return to practically normal conditions. These results sound very well, but unfortunately in very many of the cases the information on which the statistics were based was so vague and scanty as to deprive the statistics of all value. In many of the cases important auxiliary treatment, such as drainage, had been employed, and this must have been responsible in great part for the favourable result. Still, the fact remains that in individual cases the functional power of the bladder may be re-established after it has been in abeyance for a year, for five years, or even for still longer. This is, indeed, a wonderful result. Dr. MacEwan has collected 52 cases of orchectomy operated on since Professor White read his paper; of these 42 were said to have resulted more or less successfully; of the 10 unsuccessful cases in 4 there was no improvement and 6 died. Dr. MacEwan has himself operated in 5 cases; of these 3 were treated by double orchectomy and 2 by resection of the vas deferens. The first case of orchectomy was a man sixty-four years of age; for seven years he had had frequent, painful, and feeble micturition. For the past two years he had to use a catheter occasionally; the urine was alkaline and contained pus; the prostate was much enlarged, but soft. The urethra measured 9½ in. Double orchectomy was performed, and in two months the prostate had diminished to less than half its original size; the urethra was nearly an inch shorter; he passes urine with ease three times a day and once or twice at night; the urine shows only a mucous deposit, and his general health has much improved. The second case was an old man aged eighty-four years. For two years difficulty of micturition had been present; for a year and a half all the urine had been passed by the catheter, which was required every three hours. The urine contained pus. The prostate was enlarged and hard; the urethra measured 10½ in. Two months after double orchectomy the prostate was diminished by one-half; the catheter is required only once in twenty-four hours, the urethra is only 9½ in. in length, the urine is clearer, and the general health is much better. The third case was that of a man seventy-one years old. For ten years he had had difficulty in micturition and seven years he had been unable to pass any urine without a catheter, which was latterly introduced about every two hours. There was only slight cystitis. The prostate was very much enlarged and projected greatly into the bladder; the urethra measures 10¼ in. Three months after orchectomy he is still entirely dependent on the catheter, but it is only required every six hours, it can be used much more easily, and his general health is good. The question now arises, How does this

diminution of the prostate come about when the testes are removed? Griffith has suggested that the testis has two functions—the one is to control and determine the characteristics of the male sex, and the other is to produce spermatozoa for the reproduction of the species; the effect of removing the testis is to be accounted for by the withdrawal of this hypothetical product. White considers it probable that the "vitalising function" ceases on the attainment of manhood, but probably it continues during the whole of life, or at all events longer than the power of forming spermatozoa. One case has been recorded in which spermatozoa were found in the testis and yet orchectomy caused atrophy of the prostate. Professor Waymouth Reid of Dundee suggests that the epithelial-like cells which form large continuous groups in the interstitial tissue (to which no function has hitherto been assigned) may possibly be the elaborators of this product. Griffith[1] says that in involution of the testis in the old, the intertubular connective tissue remains unaltered in the first stage and even in the second stage it contains many connective tissue cells. The other theory of the atrophy of the prostate is that it is brought about through the influence of the nervous system; this might be accepted if it could be shown that unilateral orchectomy will cause unilateral atrophy of the prostate, but the statements are very divergent as to this point. Orchectomy is occasionally followed by marked mental disturbance, but this is never seen when the testis is removed for disease. Dr. MacEwan said that he had had no experience of unilateral orchectomy. The results of resection of the vas deferens are very divergent. Dr. MacEwan has performed it twice; the first case died within a week from uræmia, the second case was sixty-five years of age, and for seven years had had trouble with micturition. The catheter had had to be used entirely for the last three years and latterly every three hours. The urine contained pus and the prostate was much enlarged; the urethra was lengthened. Two months later the catheter was needed only every five hours; the urethra was shorter and the urine clearer. The testes did not seem to be atrophied. The atrophic changes in the prostate appear to take place slowly, and it is possible that the effect may be due to the inclusion of the nerves around the vas. The conclusions arrived at may be formulated as follows: 1. In many cases castration causes more or less atrophy of the prostate. 2. Atrophy occurs most common when the prostate is soft. 3. It is of most value when the enlargement is general. 4. Cystitis may be relieved or cured. 5. In marked cystitis drainage is better. 6. It may do away with the necessity of the use of the catheter. 7. Or the catheter may be required less frequently. 8. Resection of the vas acts more slowly, but the effect is similar.

Mr. REGINALD HARRISON contributed to the discussion by reading a paper on some cases of Vasectomy or Division of the Vas Deferens for Prostatic Hypertrophy. He said that his conclusions would be founded on his own cases. Long ago in cases where the vas had been destroyed the testis had been noticed to atrophy, but no mention is made of the prostate. The cases of vasectomy fell into two groups—(1) where only one vas has been divided, and (2) where both have been operated on. He has performed unilateral vasectomy in 12 cases; of these 7 derived permanent benefit and in 5 negative results were obtained or the patient could not be traced. One case may be quoted. The patient was sixty-nine years old, with a large prostate; there was hourly micturition, but no catheter was needed. The right lobe was distinctly the larger. The right vas was divided, the patient was able to retain urine much longer, and the right lobe atrophied. In the second group of cases there were 10; of these, 5 were much benefited; in 2 cases there was no improvement, 2 disappeared, and 1 is too recent to be called a success. It was that of a man seventy years of age who had a suprapubic fistula after lithotomy; he had much difficulty in micturition. Double vasectomy was performed and he was able to give up the use of the catheter. In the 5 good cases the points gained are diminished frequency of micturition, improved condition of urine, and less suffering from vesical spasm. There were no fatal cases and no cases with mental disturbance. It is better to divide the vasa, with an interval of a month between the operations. In conclusion, Mr. Harrison said that both by castration and by resection much good could be done; but that some cases are not benfited by either method.

[1] THE LANCET, March 30th, 1895.

Mr. MANSELL MOULLIN said that statistics were almost valueless, and he had to rely on his individual experience. He should be inclined to include prostatectomy as one of the methods of treatment of prostatic enlargement. Certainly the mortality of the operation was very high, but it has recently been much reduced. In Mr. Mayo Robson's last 11 cases he had had only 1 death, and Mr. Moullin had had no deaths in his 5 cases. Cases should be operated on before the urine is ammoniacal and before cystitis and pyelo-nephritis have supervened. Castration and vasectomy should be reserved for cases unsuited for prostatectomy. He had performed bilateral orchectomy in 11 cases, but he did not think any benefit would result from the unilateral operation. Of the 11 cases, 3 died; in 6 of the 8 cases which survived the relief was great.

Dr. SANDBERG of Bergen had always seen relief follow orchectomy or excision of the whole cord, but he had not seen it always follow simple resection of the vas. He considered that the relief was nervous in origin. In one case the testis had become gangrenous after excision of the cord.

Professor CHIENE said that he thought castration should only be done when all other means had failed to give relief in prostatic enlargement. If an operation was needed suprapubic cystotomy should first be tried, and then if there was enlargement of the third lobe—and especially if it be pedunculated—and if the urine was aseptic, the third lobe might be removed. If the urine was septic one should wait for six weeks, if no relief occurred even then perineal drainage should be tried, and a tube put in which might be worn in comfort for years.

Mr. F. A. SOUTHAM said that an operation was required in only a small proportion of the cases. The use of the catheter should be commenced early, and if the urine was septic the bladder should be washed out and antiseptics, such as salol, might be given by the mouth. If these failed, suprapubic cystotomy might be done, and if a pedunculated growth be found, it could be easily removed or a "collar" of prostatic tissue might be excised; but if there was general enlargement (which was more common), removal was much more difficult. Double orchectomy in his hands had been followed in some cases by a complete cure.

Mr. C. A. MORTON had had one case of double orchectomy, a man of seventy years, with much enlargement of the prostate and frequent micturition. Very gradual atrophy followed, but the patient had improved. In poor patients catheterisation always ended rapidly in cystitis, and he thought they required different treatment from those who could carry on aseptic catheterism.

Mr. JORDAN LLOYD said that for general hypertrophy of the prostate, prostatectomy had been a signal failure. He advised the early use of soft rubber (Jaques's) catheters. He did not think that examination of the prostate by the rectum was of much value as a guide to operation. With a catheter in the bladder and a finger in the rectum a very good idea could be obtained as to the size of the prostate. He thought highly of suprapubic drainage.

Dr. HADDON said he considered that frequent micturition was the cause of overgrowth of the prostate, and that the condition of the urine was the cause of the frequent micturition.

Professor CAMERON of Toronto said he considered perineal drainage to be better than suprapubic. He had had twenty cases of double orchectomy with one death from suppression of urine.

Dr. MACEWAN, in reply, said he had not intended to imply that orchectomy should supersede prostatectomy. He should certainly try resection of the vas after hearing Mr. Harrison. He thought that intra-vesical prostatic growths should be treated by prostatectomy, but that general enlargement of the prostate required orchectomy. Drainage may be used in very weak or aged patients, but it is merely palliative.

Dr. LAUENSTEIN of Hamburg read a paper on Sub-phrenic Abscess and its Treatment. He said he had had six cases. As to the etiology, they might arise from (1) the stomach and duodenum; (2) the vermiform appendix; (3) the bile ducts and liver; (4) the kidney: (5) hydatids; (6) they might be metastatic; (7) they might come from the thorax; or (8) from the ribs. Occasionally they get well spontaneously by rupturing into a hollow viscus, but out of 104 cases treated expectantly only 6 lived, while of 74 cases treated surgically 39 recovered.

Dr. SNOW read a paper entitled "Practical Notes in 300 Cases of Breast Excision."

Dr. MCKENZIE DAVIDSON of Aberdeen gave a demonstration of the apparatus necessary to produce Roentgen's rays, and exhibited numerous skiagraphs of cases illustrating its use in surgery.

Mr. G. STOKER read a paper on the Surgical Uses of Oxygen Gas. He described the apparatus employed for applying the gas to the various parts of the body, and exhibited lantern slides of the photographs of patients before and after the treatment. The gas is chiefly used for ulcers and for alopecia with great success. Two cases were shown. Bacteriologically the treatment seemed to destroy all bacteria except staphylococcus pyogenes albus and aureus, and these, on the contrary, grew larger. Mr. Stoker considered that these bacteria have a beneficial influence on ulcers. Microphotographic lantern slides were exhibited.

OBSTETRICS.

WEDNESDAY, JULY 29TH.

Address by the President of the Section.

In this section the proceedings began by the delivery of the following address by the President, Dr. Halliday Croom:—

GENTLEMEN,—I accept the honourable position in which you have to-day placed me, not, I need hardly say, as a mark of any personal merit, but as a characteristically generous acknowledgment of whatever eminence in this special department the Edinburgh school may in the past have attained. For the honour done us I most heartily thank you. In no department of medicine have advances been more rapid; in none has the evolution of our art been more conspicuous; in none the results more brilliant than in gynæcology. The perfecting of ovariotomy has resulted in the saving and prolonging the lives of multitudes, and now within the last few years men are turning their minds with fresh ardour to dealing with that direst of women's foes—viz., that of uterine cancer. When we consider the prevalence—the increasing prevalence—of cancer of the uterus, cervical and corporeal, and its short course and inevitable termination, it is not to be wondered that the surgical treatment of it has always received the careful attention of the gynæcologist and during the last decade has come into special prominence. According to a recent estimate there cannot be less than 8000 women suffering from this disease in England and Wales. Of all women who die of cancer one-third die of cancer of the uterus, and the cervix, like other ostia, such as the lip, pylorus, cæcum, and rectum, is a frequent seat for it. It is needless for my present purpose to go back to the discussion as to whether cancer has its origin constitutionally or locally. This is certain, whether in the breast or uterus, cancer, if recognised early enough, can in most cases, when dealt with thoroughly, be removed, sometimes permanently, at all events so as to very materially prolong life. Vaginal hysterectomy is an old operation dating as far back as 1822 and indeed in the earlier part of the century the treatment of cancer received great attention. It was Recamier who first brought the operation into notice and he first recognised the necessity of ligaturing the uterine arteries. He successfully, in 1829, performed hysterectomy for uterine cancer. From that time till but recently it was practised with but little success, indeed to a very great extent was abandoned, and it is only within comparatively recent years, owing mainly to the work of Schroeder, Martin, Pean, and Doyen that the operation has become a comparatively safe and certainly a very easy and neat one. Modern instruments and improvements in technique have secured for the operation a place among the shortest, simplest, and most complete. Sepsis and hæmorrhage are of course the main risks. With scrupulous antiseptic precautions and a free drain the former is reduced to a minimum, and with the use of the clamp the latter is not a very serious anxiety. With an improved and simplified operation such as I have just referred to, the question arises, What is its field? Looking at the prevalence of cancer one would at first say that it was an extensive one, and, judging by the records of various German surgeons, one would arrive at the conclusion that the field is not only a very large one but that the *immediate* and, what is more to the point, the remote results are eminently satisfactory. Now, Gentlemen, is this really so? For vaginal hysterectomy to be successful mobility of the uterus, freedom of the fornices and, as a result, the possibility of pulling the cervix well down to the vulva are the essential points. The more these desiderata are in evidence the greater is the prospect of ultimately prolonging life. Without these conditions the operation can, of course, be performed, but I question if it either relieves suffering or prolongs life. The expectancy of life of a patient with cancer of the cervix is two years, sometimes even longer, and unless the operation can secure extension of life it is worthless; for, be it observed, the relief from discharge and hæmorrhage is only temporary, the disease returning to affect the peritoneum, bladder, and rectum, and it is, further, an open question whether death is averted any longer than when the disease is allowed to take its natural course and the patient dies in the Euthanasia of an opium-eater. All partial and incomplete operations are practically valueless. If the whole diseased structure is not removed the patient in the majority of cases is worse than before. The mortality of the operation is not great, and as the experience of each individual operator increases and as the *technique* improves it will become less and less. The point, however, is to get suitable cases. I fear my experience is exceptional, but exceptional though it may be, I feel bound to state it. During the last ten years, both in private and hospital practice I have seen over 300 cases of malignant disease of the uterus, and though it has been my constant endeavour to get cases suitable for vaginal hysterectomy, it has surprised me how very few have ever come before me which conformed to all the requirements likely to make the operation of permanent value.

[Dr. Halliday Croom then pointed out the reasons for this rarity of suitable cases for operation, and deprecated the too frequent employment of the proceeding in other than malignant conditions, summing up as follows:]

(1) Vaginal hysterectomy offers the very best and practically the only chance of cure in cases of cervical cancer, corporeal cancer, and sarcoma; (2) the operation must be performed sufficiently early and under the conditions already referred to; (3) if these do not exist the patient, in my opinion, is best left alone; (4) in some cases of septic disease of the uterine appendages hysterectomy is often the safest course to pursue; and (5) while far from wishing to be dogmatic and realising fully that each case must be dealt with on its own individual merits I am disposed to think that the field for vaginal hysterectomy for other than malignant or septic disease is much more limited than the present literature of the profession would lead us to believe. As regards salpingo-oöphorectomy the position of this operation for various pathological conditions is now established and its sphere much better defined. The frequency of the operation for various inflammatory conditions has fortunately become much less, and one is glad to observe that an operation, excellent in itself and which in earlier days was overdone, is now limited to gross pathological lesions of the ovaries and tubes. Removal of the ovaries, too, for bleeding or rapidly growing fibroids is gradually being supplanted by an operation much more certain in its results though more dangerous for the moment—that of abdominal hysterectomy. This operation at one time had such an alarming mortality as to be quite deterrent. Even yet the death-rate is most undesirably, and perhaps needlessly, high, and it is an operation which, except in the hands of experienced operators, is not to be undertaken without considerable anxiety.

[He then referred to the improvement that had taken place in the manner of performing abdominal hysterectomy, and concluded by referring to the conditions where removal of the ovaries had undoubtedly had a potent influence on the general health economy.]

At its conclusion, on the motion of Professor BYERS (Belfast), seconded by Professor MURDOCH CAMERON (Glasgow), a hearty vote of thanks was accorded to Dr. Croom.

Dysmenorrhœa.

Professor MURDOCH CAMERON, in introducing the discussion, spoke of spasmodic dysmenorrhœa, that variety which he thought was most common and most troublesome to general practitioners. He advocated the use of solid dilators, and showed his own set, and between the periods he recommended the use of white metal stem pessaries, which, he said, might with safety be left in.

Mr. CHRISTOPHER MARTIN (Birmingham) spoke of the importance of correct diagnosis. Is the dysmenorrhœa due to intra- or extra-uterine conditions? Having settled this question, treatment followed. In intra-uterine conditions it might be an endometritis, or a myoma, &c. In cases of uterine dysmenorrhœa the spasm, the increased blood-tension, and the neuralgia were the elements present, and one or other demanded treatment in different cases. For the

pain he recommended rest, the hot douche, glycerine plugs, bromide of potash and belladonna, and suppositories of belladonna extract and extract of cannabis indica (half grain of each). He gave no opium or alcohol. In the neuralgic type he gave antipyrin, and if there was simple ovarian tenderness, viburnum prunifolium or viburnum opulus. Dilatation was of value, but the cases so treated often recurred. Where, as the result of perionitis, the pelvic organs were matted together, he opened the abdomen, separated the adhesions, opened any cysts of the ovaries and touched them with the cautery, and made a patulous opening into the Fallopian tube. This plan would cure some cases of chronic salpingo-ovaritis, and it was a conservative operation. If the disease was too advanced, or there were distinct tumours of the appendages, he removed them; but this was the last resource. In some severe cases where the appendages were involved he had removed the uterus, ovaries, and tubes for dysmenorrhœa by the vaginal method, a plan which is tolerated better by patients than when the abdominal method is used.

Dr. J. INGLIS PARSONS (London) had in a large experience at the Chelsea Hospital seen no cases of membranous dysmenorrhœa or of pure ovarian origin — that is, where the ovary was not bound down. He spoke of antiflexion as a very important cause of dysmenorrhœa being due to the obstruction, and he recommended dilatation.

Dr. J. D. WILLIAMS thought in some of the cases there might be a diseased condition of the mucous membrane at the internal os. He found nitrate of soda and diffusible stimulants useful.

Dr. AMAND ROUTH (London) spoke of the value of the coal-tar products. Ten grains of phenacetin every three hours would give the greatest relief. Tabloids of nitroglycerine or a drop of a one per cent. solution of nitroglycerine were also valuable. Glycerine tampons or glycerine gelatin pessaries applied to the cervix were useful, and they had the further advantage that they facilitated subsequent dilatation.

Dr. LYCETT (Wolverhampton) advocated the constitutional treatment, especially if there was a rheumatic or strumous history.

Dr. BEDFORD FENWICK (London) said congestion was the basis of the trouble in many cases, and purgation and local bleeding often gave good results.

Professor BYERS said that diagnosis of the cause was of the greatest importance in dysmenorrhœa, and he advocated attention to the personal equation in each case. That physician would have the best results in managing dysmenorrhœa who treated each case on its own merits—in some getting rid of an anæmic or rheumatic tendency; in others the dilatation method would give the best results; while in many of the simpler cases in unmarried women treatment directed towards the state of the nervous system and an endeavour to make the patient less introspective and to think less of her pelvic pain by cycling and simple occupations would do a great deal more to facilitate cure than local treatment.

Dr. KERR advocated electricity in some nervous cases.

Dr. PURSLOW (Birmingham) saw cases sometimes set in after puberty. He was against too much examination in unmarried cases.

Dr. CONNEL (Peebles) spoke of the advantage of cycling in the cure of many cases of dysmenorrhœa in young unmarried girls.

Miss CADELL, M.D. (Edinburgh) objected to the use of bromide of potassium, which might be as undesirable in its results as morphia. The disease—dysmenorrhœa—in her experience did not always begin at puberty; it often arose after a cold or a chill or some slight over-exertion. She had seen the rheumatic diathesis very frequently the cause of the malady, and in such cases anti-rheumatic treatment gave the best results. She spoke very strongly against the frequent practice of examining unmarried girls, and said she would not (as a woman) think of doing it in dysmenorrhœa until she had given medicinal and other general treatment a thorough trial. Nothing was worse for a woman than that she should be led to dwell morbidly on her uterus.

Professor MURDOCH CAMERON replied.

After this discussion the following papers were read:—Dr. A. DONALD on Intra-peritoneal Hysterectomy and Total Hysterectomy by Combined Method for Fibroid Tumours of the Uterus, with a series of cases; Mr. HERBERT W. WHITE on Practical Observations on the Electrical Treatment of Uterine, Mammary, and other Growths: Dr. J. M. LAWRIE (read by Dr. CONNEL) on the Best Method of Performing Total Extirpation of the Uterus, with six successful cases; and Dr. G. A. TURNER on the Successful Preventative Treatment of the Scourge of St. Kilda—Tetanus Neonatorum."

In the discussion which followed the following took part: Mr. CHRISTOPHER MARTIN, Dr. J. INGLIS PARSONS, Mr. STUART NAIRNE (Glasgow), and Dr. MORSE.

PUBLIC MEDICINE.

WEDNESDAY, JULY 29TH.

Address by the President of the Section.

Sir JOSEPH EWART, M.D., Deputy-Surgeon-General (retired) Bengal Army, late Professor of Medicine, Principal and Senior Physician, Calcutta Medical College, delivered an address on the Lowering of the General Death-rate.

[After giving figures to show how the death-rate had generally decreased and how certain diseases had disappeared Sir Joseph Ewart briefly passed in review (*a*) diseases which are still rife, such as tubercle and enteric fever; and (*b*) those which are wholly or nearly extinct in this country, as plagueand malaria. He proceeded:]

Whether we consider the gradual decrement of the mortality from all causes or from special diseases, or the disappearance or great reduction of the death-rate resulting from certain diseases briefly reviewed in this communication, there is room for much satisfaction. The great facts of the sanitary history of the remote and recent past give hope for continued progress and improvement in the future. The absolute reduction of some diseases and the gradual reduction in the destructiveness of others stand forth as object lessons for the guidance and encouragement of the medical officer of health as well as the sanitary engineer. The evolution has been proceeding for centuries, with a more quickened pace and success during the Victorian era than in all the centuries before put together. Though much good has been accomplished still more remains to be done. Of course, the warfare against the so-called zymotic diseases will be continued with unabated activity. It would, however, be advantageous to extend the field of operations so that the pioneers of preventive medicine might be enabled to deal with other diseases equally important. Zymotic diseases in 1893 "caused a death-rate of 3165 per million living." Tuberculous diseases accounted for a death-rate of 3192 per million in the same year. The annihilation of these diseases, like that of the allied disease leprosy, would have brought the mortality of 1893 down from 19·17 to 16·02 per 1000. Bronchitis and pneumonia were responsible for a death-rate of 3192 per million. A very large amount of this mortality is caused by improper conditions of housing, clothing, or work, and is preventable. Then rheumatism may be cited as a disease the mortality from which is probably much understated at 433 per million. Indeed, in its acute and chronic phases it must be regarded as one of the greatest enemies of mankind. Why should not these—and I might include others—be included in the list of notifiable diseases? Indeed, the time is coming when, with the exception of old age and minor ailments, every serious disease should be included in the domain of preventive medicine.

Apart from the zymotic diseases the three great enemies of the human race are tuberculosis, malaria, and rheumatic fever. As regards (*a*) tuberculosis, we are already acquainted with our enemy and know how to meet it with increasing success in the future. (*b*) Malaria has been practically extinguished in these islands; but it is our worst foe in the low-lying lands of tropical and tropoidal countries. It is this more than anything else which lies at the foundation of the inability of the European race to colonise such regions. Our experience at home—applied on a sufficiently complete scale—is the only remedy—namely, efficient drainage and cultivation of the soil. It is, therefore, largely a question of time, money, and enlightened and progressive civilisation. In malarious India, which is as large as Europe excluding Russia, the evolution is advancing on the right lines, but he would be a bold man who would venture to guess the number of centuries that will be occupied before the same immunity will be accomplished there as is now exemplified in Great Britain and Ireland, and in the colonisable possessions of Canada, Australia, and New Zealand. With respect to (*c*) rheumatic fever it is apparent enough that the returns of the Registrar-General do not expose the ravages committed by it in their entirety. It is one of our

most formidable enemies. It is tolerably certain that it will soon have to be transferred from the list of constitutional to that of specific febrile diseases. On this point overwhelming cumulative evidence has been adduced in the Milroy Lectures of 1895 by Dr. Newsholme, the distinguished medical officer of health of Brighton. Dr. Newsholme shows that rheumatic fever occurs in distinct outbreaks at intervals of a few years, and that both in this country and in the European and American continents these epidemics are very marked. The occurrences of these epidemic periods never occur in years marked by much rain, but only in dry years, and particularly when there has been a succession of dry years. This is explained by Dr. Newsholme on the hypothesis that the micro-organism of rheumatic fever finds the conditions necessary for its subterranean existence in a dry and comparatively warm subsoil. In towns in which the point could be tested the epidemics of rheumatic fever always corresponded with a low subsoil water and a subsoil temperature abnormally high. These observations completely controvert the old-established and deep-rooted notion that rheumatism is associated in its origin with "damp." This is a good instance of the not infrequent fallacy of general notions. No doubt it originated in the fact that with changes of weather twinges of pain are often experienced by some neurotic people, and it was erroneously assumed that these were rheumatic in their character and pathology. My design has been, so far as the restricted limits of an address have permitted, to pourtray the marvellous reduction of the mortality in general from all causes, and also from some diseases still prevailing in a mitigated degree, as well as the more or less complete extinction of other maladies which formerly decimated the inhabitants of these islands. A review of the retrospect justifies the entertainment of a hopeful and encouraging prospect. The experience already gained clearly indicates that the time is approaching when typhoid fever, phthisis, scarlet fever, and many other diseases will be prevented with as much success as has attended the warfare against typhus fever, scurvy, plague, leprosy, malarious fever, cholera, &c. It is this knowledge of our past sanitary history—pointing to other and even greater conquests looming in the not very distant future—that tempts me, in conclusion, to say a few words on the organisation of the scientific machinery engaged in carrying on the campaign, especially against those diseases which are known to be the most unrelenting foes to the enjoyment of health, happiness, and longevity. It is admitted by all who are competent to form a reliable judgment on the case that the existing uncertainty in the tenure of office by many health officers and inspectors of nuisances is decidedly injurious to the preservation and conservation of the public health. The practice of making appointments on a system involving annual, biennial, triennial, quadrennial, or quinquennial re-elections is a monstrous injustice to officers engaged in the execution of functions eminently judicial in character. The system is calculated to handicap independence and integrity, to obstruct and stifle sanitary progress. It is vitally important that in carrying out their duties fearlessly, fairly, honestly, and honourably, with the single object in view of promoting the best interests of the public, the health officer and inspector of nuisances should be guaranteed against injustice to themselves. Security against such injustice has been granted to the health officers of London, and also in the provinces, in all cases where the Local Government Board is responsible for the payment of half of his salary; but in a considerable proportion of the appointments in rural and small urban districts this is not so. The remedy for this state of things was ably set forth by an influential and representative deputation which waited upon Sir Walter Foster, M.P., on March 9th, 1895. The spokesmen were Dr. Farquharson, M.P., Dr. Armstrong, Dr. Ward Cousins, Professor Smith, Mr. Vacher, and Earl Fortescue. His lordship laid before Sir Walter Foster the following resolution passed by the Incorporated Society of Medical Officers of Health and the Sanitary Institute respectively:

> That in the opinion of this society (Incorporated Society of Medical Officers of Health) it is detrimental to the best interests of the public health, and the efficient carrying out of the laws relating thereto, that medical officers of health should be appointed for limited periods and on a precarious tenure of office. That it is desirable that similar provisions to those of the Public Health (London) Act, 1891, Section cviii. (1), (2), *b* and *c*, should apply to all medical officers of health in England and Wales. This meeting (Sanitary Institute Congress) is of opinion that in the interests of the public health of the country it is no longer expedient that appointments as medical officers of health and inspectors of nuisances should be made for limited periods of time. It is desirable that the powers of the Local Government Board with regard to these should be extended so as to apply equally to all medical officers of health and inspectors of nuisances, whether they be paid entirely out of rates or not.

Dr. NASMYTH then read a paper on Medical Research in Relation to Hygiene, an abstract of which we hope to give on a subsequent occasion.

A communication was then read by the SECRETARY from Dr. J. A. Dick of Sydney, on—

An Experience in the Voluntary Notification of Diseases (Sickness) in Sydney, N.S.W., Australia.

Dr. DICK described an attempt of the Eastern Suburbs Medical Association of Sydney to obtain returns of local sickness. The inquiry embraced details of prevalence, mortality, localisation, and environment with regard to twenty-one diseases, but the reporter had power to add to the list. The object was to obtain a reliable series of local statistics. The association sent out blank forms to all medical practitioners in the neighbourhood, with a request that they would fill up columns opposite each disease with facts as to (1) order of prevalence; (2) number of cases; and (3) mortality. At the same time it was hoped that evidence of value would be obtained from the concurrent meteorological reports issued by the Government. The result of the attempt was an entire failure. The association concluded that no purely voluntary system of sickness registration was likely to succeed in South Australia.

Dr. ROSS (Dumfries) thought that a voluntary system would never be generally adopted. At the same time, he thought now that collective investigation formed so important a part of the work of the branches it would be well to bring the subject before their notice. In this way the experiment of the Sydney association would be of use. Certainly any returns of the kind contemplated could not fail to be of great value to the medical profession.

The Profession and the Public Health Service.

Dr. J. C. MCVAIL, medical officer of health of the counties of Stirling and Dumbarton, read a paper on the Profession and the Public Health Service. He said:—The points to which I wish to direct your attention are mainly these: the public health service as a field of professional work, the question of whole-time service or part-time service by medical officers of health, and the relationships which ought to exist between the medical practitioner and the health officer. It seems to me that the life of a medical officer of health is likely to be a much more desirable and satisfactory life than that of a general practitioner, for although the average income of the former is considerably less than that made by a fairly successful practitioner he has no accounts to keep and to issue; he does not require to worry as to whether one patient will be hardly pressed financially by any fair and reasonable charge for attendance during long illness, nor, on the other hand, does he need to question the wisdom of his moderation when another patient who is wealthy explains to him in paying his bill that he had expected it to be more than twice as much. He is, however, not without his troubles. The central authority brings pressure more or less strong and constant to bear on him with regard to insanitary conditions prevailing in his district, but his local authority may be reactionary and all the better pleased if he will gloss over defects and defend the indefensible. He may also have difficulties with his medical brethren who are in private practice—difficulties mainly connected with the Compulsory Notification Act, but occasionally also with certification of nuisances. Speaking generally, it may be said that his principal troubles in regard both to the central authority and to his medical brethren are essentially related to three particular questions belonging to the administrative system under which he works. These three questions are: (1) Has he charge over a sufficiently large district? (2) Has he security of tenure? and (3) Is he debarred from private practice? If the administrative area is large, it is likely to be free from petty local influences, and the individual members of the local authority are likely to be of a better class and able to take broader views of the duties of a sanitary board. Where the area consists only of a small village the removal of a nuisance, in itself comparatively trifling, may be rendered difficult by its relationship to various local interests and sentiments. If, however, the same village be included in a health district embracing half a county, the village feeling will weigh little or nothing with the sanitary authority,

whose members are drawn from all parts of a wider area, and any possible adverse influence of one or two local representatives would most likely be swamped by the action of the majority. All sanitary districts, therefore, ought to be large, and incidentally their size will inevitably smooth away many of the difficulties of the medical officer. In Scotland, we fortunately know nothing, except by hearsay, of that extraordinary arrangement which is sanctioned by law in England, and by which when a number of adjoining local authorities have formed themselves into a union for the purpose of appointing the same medical officer of health, anyone of them may at any time withdraw from the union, so that the whole combination runs constant risk of falling to pieces. This particular system of combination provides large areas only in respect of the services of the medical officer. It continues to have the disadvantage that belongs to each question being discussed and voted on by local bodies apt to be subject to side influences, and it would not be easy to conceive of an arrangement more fitted to render nugatory the advantages which naturally belong to large sanitary districts. The combination ought to begin with the abolition of the individual authorities and the constitution of the whole district into one administrative unit. This is what has been done in the rural districts of Scotland under the provisions of the Local Government Act of 1889. With regard to all public health questions the parish in Scotland is now non-existent. It has been replaced by large groups of parishes whose representatives have an equal voice in the management of every part of the extended area. This, however, refers only to rural districts. The small burghs are still in Scotland quite independent of county councils and district committees and of each other. What is still required is either the inclusion of such burghs in the areas of the county districts or the grouping together of a number of small burghs under the same health officer, though this would be less effectual, as each little burgh, perhaps of 1000 inhabitants, would retain its administrative autonomy, and it is obvious that in such a matter as hospital accommodation union with the surrounding county area would be better than with other burghs possibly not very close at hand. The second question is: Has the medical officer security of tenure? The very thoroughness of his work may be in the eyes of individuals its most objectionable feature, and it is manifestly important that he should be able to perform his duties without fear or favour. Yet the question is not quite so simple as it looks. I have already argued that medical officers should have large districts under their control. It seems to me that the aim ought to be to secure the two reforms—increase of area and security of tenure—simultaneously. At present there are hundreds of districts much too small to be satisfactory, and if security of tenure were in these circumstances given to every medical officer there might be increased difficulties in the way of future combination of groups of authorities, either under Imperial legislation or by voluntary agreement. It might be suggested that only medical officers who are debarred from private practice, or who, in other words, have large districts to supervise, should have security of tenure. But that course would be unfair to health officers who are doing their work effectively and yet are in private practice. It might also tend to prevent the formation of large districts, for if the choice came before a small district of remaining separate or of merging itself into a large combined area it might adopt the worse alternative merely in order to keep the power of dismissing its medical officer. When the Local Government Act for Scotland was passed in 1889 many vested interests were interfered with and many medical officers had to vacate their appointments. There had been no security of tenure, yet there was felt to be a difficulty, and it was got over by pensioning all these officers on the ordinary civil service scale. I understand that in England the existing law provides for a similar solution. This question cannot be disentangled from that of whole-time service *versus* part-time service The medical officer of health should not be in competition with his brethren for general practice. He might do certain other official work, particularly as physician to a fever hospital, or even as police surgeon in a town, but the science and practice of sanitation are in themselves sufficient to occupy all his time. This question again is interlaced with the next—the relationship of the health officer to the general medical practitioner. Where the former is not engaged in private practice there is very much less risk of friction and difficulty between himself and his brethren, especially in connexion with cases of infectious disease. Whether he be in practice or debarred from practice, the medical officer has no right whatever on the ground of mere official position to assume any superiority over the general practitioners in his district. If he has seen infectious disease only in the wards of a fever hospital, where there is every assistance towards correct diagnosis that cleanliness and skilled observation can yield, he can have little conception of the difficulties besetting the general practitioner in distinguishing enteric fever or the eruption of typhus fever in the crowded houses and on the unclean skins of the poorest classes of the community. In particular where the physician to a fever hospital is himself in practice, whether he be medical officer of health or not, one of his rules should be, so far as is reasonably possible, to protect the reputation of his brethren with regard to any doubtful case, and when he discovers that a case which has been sent to him as typhoid fever turns out to be pneumonia he ought to endeavour to put the matter in such a light that those interested shall be grateful to the medical attendant for having taken the precaution of protecting even from the possibility of infection the other members of the family and the surrounding population by his timely removal of the doubtful case to hospital. In the course of several years' experience of the Notification Act I have occasionally differed from the general practitioners with respect to (1) delay in notification; (2) the desirability of removal of particular cases to hospital; and (3) the notification of erysipelas. In the last case, however, it is mainly the Notification Act itself that is at fault, and this cause of friction will probably not be abolished until the word "erysipelas" is struck out of the Notification Act.

Dr. SYKES, medical officer of health of St. Pancras, spoke of difficulties as to the Notification Act in poor districts, where people have perhaps a single visit from more than one medical man regarding the same case. It is the medical officer's duty to accept the certificate, but he does not require to verify it. *Mala fides* and involuntary errors of diagnosis have to be clearly distinguished. The former is very rare indeed, and the latter should form the subject of amicable arrangement. While the medical officer should not make it his practice to verify certificates, yet diphtheria was sometimes largely spread by doubtful cases. Dr. Sykes had seen reason to look on typical diphtheria as not necessarily accompanied by deep constitutional symptoms. A patient might have an undoubted diphtheritic throat and yet walk about feeling well. Dr. Sykes held that it was wrong for the medical officer to act as consultant regarding diagnoses where local practitioners differed in opinion. If, however, the medical officer be asked by two practitioners to decide between them he might properly do so. Still better would be bacteriological diagnosis if sanitary authorities could be persuaded to pay the cost in diseases where such a method was practicable, especially in diphtheria. This arrangement had been adopted in St. Pancras.

Dr. SPOTTISWOODE CAMERON, medical officer of health of Leeds, said that it was important to educate medical students in infectious disease, especially since the Notification Act came into general operation. Many cases are sent in as typhoid fever that are not so, yet even a man with pneumonia was likely to be better off in an enteric fever ward than in an unwholesome hovel. Only once had Dr. Cameron seen any reason to suspect that typhoid fever was contracted in hospital, and in that case the diagnosis remained doubtful. Observation wards were a necessity for a fever hospital, and sanitary authorities should be instructed that enteric fever in its early and doubtful stages was very likely to spread infection. Measles, however, was much more difficult to deal with and hospitals should be increased so as to deal with it. Delay in notification he had found much less in Huddersfield than in Leeds, though the latter had a medical school. Gradually, however, matters were improving and in Huddersfield ten years had seen a vast improvement. Erysipelas was a difficult subject as to notification. Recurrent erysipelas was in almost every case an indication of imperfect drainage and its notification was useful in this way as well as in relation to puerperal fever. The question of contradictory certificates was an anxious one for the medical officer. Where a note came from a second medical man that a certified case was not scarlet fever, Dr. Cameron's practice was to ask the second medical man to look on the case as infectious and to help to

isolate it within the house, or, if this were impossible, to send it to an isolation cottage. The second medical man, however, was usually right, as he did not venture to oppose a previous certificate without very careful examination. As to removal to hospital, if the certificate contained a form on which the attendant could state his desire to have the case removed it saved consultation and time. Generally it was important that medical officers should act as missionaries in public health to the general medical practitioners, as they in their turn had to educate the public.

Dr. MAXWELL ROSS, medical officer of health of Dumfries referred to the high level the discussion had taken. Dr. Ross emphasised the difficulties of diagnosis in working-class practice. Even medical officers not in practice had difficulties. He agreed that the medical officer should not make a habit of acting as consultant. It was difficult or impossible for the county medical officer to personally consult with the county practitioner as to removal to hospital, but in the certificate forms issued by Dr. Ross to medical men the question was asked. Yet there were exceptional cases in which the medical officer needed to ask the practitioner to meet him. If small-pox were diagnosed wrongly a scare arose in the neighbourhood and would only be laid after consultation. Typhus fever was rarely seen in country districts, and the certification of a single case usually involved a consultation as to diagnosis. Medical officers of health were all the better for having had a preliminary training in private practice, as they could then sympathise with the practitioner's difficulties. Occasionally, however, a medical officer had a genuine grievance against the practitioner.

Dr. SCURFIELD, medical officer of health of Sunderland, alluded to the risk of differing in diagnosis from the practitioner. In Sunderland the certificate forms included an enquiry as to removal to hospital.

Dr. GROVES, medical officer of health of Carisbrooke, held that rather than question the diagnosis of another medical man the public and the medical officer of health should be put to the trouble and inconvenience of accepting the wrong diagnosis, if the practitioner persisted in his opinion even after consultation and in spite of the opposite opinion of the medical officer. It was better to isolate chicken-pox as small-pox than to run any risks. There was much irritation in some districts about "whole-time" officers, whose conduct was sometimes overbearing, and all officers should be very careful in their dealings with practitioners.

Surgeon-Major INCE spoke on this occasion as a layman, and held that the medical officer of health should be empowered to examine every notified case in the public interest. There should be no fee for notification. The inspector of nuisances should be the servant of the medical officer. In many parts of the country the inspectors had little practical and no theoretical knowledge of the subject. The anxiety which parents had to undergo regarding removal had to be borne in mind by the medical officer.

Dr. GORHAM (Garstang) referred to the circular issued by the Local Government Board saying that the medical officer of health should not presume to visit and diagnose without consent of the patient and attendant.

Mr. C. E. PAGET, medical officer of health of Salford, said there would be no friction between medical officers of health and practitioners if it were fairly remembered that both were in the same profession. He never questioned the diagnosis of the attendant. The result was that when in doubt the attendant called in the medical officer of health for consultation. Even where the medical officer of health was also in private practice there should be no friction, and there need be no friction. In issuing circulars and handbills the medical officer of health in practice should never sign his name or seem to advertise himself.

Dr. MCVAIL shortly replied on some of the points raised in the discussion.

Dr. C. R. DRYSDALE (London) then read a paper on

Vaccination and Revaccination with Animal Vaccine as in Prussia.

He said that the epidemic of small-pox of 1895-96 occurred in a city where, twenty years ago, vaccination was well carried out, all but 5 per cent. of all children born being vaccinated. In 1895, owing to the efforts of anti-vaccinators, 80 per cent. of the children born in Gloucester were unvaccinated. In March, 1896, there had been 81 deaths from small-pox in the Gloucester Small-pox Hospital, 70 of which deaths occurred in unvaccinated persons. None of the deaths among vaccinated persons occurred under the age of twenty-seven years. Up to May, 1896, 1766 cases of small-pox had occurred in Gloucester since July, 1895. The grand jury for Gloucester on April 17th recommended that "not only vaccination but revaccination within a prescribed limit of age is urgently needed." If this were done small-pox might be stamped out as it had been in Germany. The German law of 1874 appointed that vaccination should take place within the year following the birth year and revaccination at the twelfth year of age. In Germany this law had been strictly carried out and almost invariably by means of animal vaccine. In 1895 the death-rate from small-pox in Germany had only been 7 per million of the population, whilst in France, Austria, and England no such admirable results could be chronicled. There had, it was said, been no death in the German army except one since 1895. Vaccine was now known to be merely small-pox mitigated by passing through the bovine species. Dr. Edward Jenner's induction was based on the fact that some milkers had been vaccinated as much as thirty years before inoculation. This made him suppose that infants when vaccinatad might be expected to remain free from small-pox the whole of life. But his cases were all those of adults who had been vaccinated in adult life, and did not resemble the vaccination of modern times. Experience had shown that if persons were not revaccinated they were liable to take small-pox late in life; consequently the German plan was quite necessary to perfect the practice of vaccination. It was impossible to say *à priori* how often vaccination should take place; but the German experiment had proved that one revaccination at the age of twelve years was quite satisfactory. In Germany at present all vaccinations and revaccinations, with the exception of a very small number indeed, were carried out with animal vaccine treated with glycerine in tubes. The history of our own system of vaccination showed first that our system was not sufficiently protective, and, moreover, that it was unpopular with many on account of the danger of syphilis. It was well to remove even the most unreasonable prejudice which stood in the way of such a beneficent art as that of vaccination, and he urged that the meeting might express itself as in agreement with the grand jury of Gloucester in recommending revaccination to the nation as it was so successful in Germany. Personally, also, he expressed his opinion that in all the cities of the United Kingdom animal vaccine should be substituted for the more unpopular humanised vaccine. This would, he thought, do much to allay the opposition which had recently been the cause of so many deaths among innocent children.

Dr. GROVES (Carisbrooke) doubted whether it would be wise to move a resolution to make revaccination compulsory. His rule was that he would not vaccinate the child of other persons with lymph that he would not use for his own children. He thought that no medical practitioner should use lymph that had not been sealed by the State; that calf lymph should be used; that all lymph should come from a central department; and that arm-to-arm vaccination should cease.

Mr. GARSTANG (Knutsford) said that where the medical man did away with human and adopted animal lymph most of his difficulties would vanish with regard to the Vaccination Acts. He approved of the general proposition that animal lymph should be supplied by the State.

Dr. MCVAIL (Stirling) argued that it was the first duty of the medical profession to do their best to remove the popular objection to vaccination. Every consideration should be given to objections, whether the latter were right or wrong. For his own part he would not hesitate to use human lymph for his own children. The age limit in England was three months, in Scotland six. Infants were subject to skin eruptions, and in consequence of these limits in England rashes broke out after vaccination, whereas they came first in Scotland. He thought the compulsory age should be extended to twelve months. The heavy infantile mortality fell for the most part on children under one year. All vaccination was now compulsory during the first few months of life. It was accordingly open to parents to argue, *post hoc, propter hoc*, that death resulted from vaccination. He believed, moreover, that by deferring vaccination to the later age the protective influence of the inoculation to the individual extended over a long time. Medical men were perhaps too much inclined to think the law must follow their views absolutely on the value of vaccination. As a matter of fact, the Legislature must determine the amount of pressure to be brought upon the

individual. To his mind, whatever was necessary for enforcing primary vaccination was equally needed for the secondary operation. At present the law was illogical in that it ignored one-half of the protective powers of vaccination. He was firmly of opinion that more would be gained by moderate insistence on secondary than by relaxation of primary vaccination.

The following resolution, proposed by Dr. GROVES, and seconded by Mr. GARSTANG, was then put to the section and carried *nem. con.*: "That, in the opinion of the Public Medicine Section of the British Medical Association, it is desirable that calf lymph should be universally available from the Department of State."

PSYCHOLOGY.

Address by the President of the Section.

Dr. J. A. CAMPBELL delivered an address upon Lunacy in Cumberland and Westmorland. He said:—

I welcome you to Carlisle. Carlisle has been called the "Merrie Citie," but the phraseology of olden times gave a different acceptation to the term "merrie" from what we now understand by it. It meant then the brave, the valorous city, but though this was then the meaning of the word I trust that from your point of view you will find it a "merrie citie" in the ordinary sense of the term, and that during your short stay here the sun may "shine fair on Carlisle wall"; if it does I am sure nothing shall be wanting on the part of the medical inhabitants of the city and neighbourhood to prevent you from having "sunny memories" of our meeting here. Since I began the study of lunacy and entered on its practical treatment some thirty addresses on the subject have been given before the Medico-Psychological Association, and in this section twenty addresses have so far been delivered by some of the most eminent men who have been connected with our specialty — men who were able to clothe their thoughts of wisdom in words of eloquence and wit. Now to one who has either heard or read all these addresses it really becomes a matter of extreme difficulty to choose a subject which is not threadbare and to avoid repeating what has already been better said. I sympathise with those who follow, for the difficulty which I feel will yearly increase. My experience as one of the audience leads me to believe that a diffuse address which touches on several topics, which affords an ample choice of subjects for a discussion, and which is not too exhaustively scientific, is best suited for a section where exact scientific work, as shown by the programme of our secretaries, is to follow for several days. I therefore, in accordance with my views, submit to you the following, trusting its defects will be pardoned and excused on the plea that "the environment of county asylum life tends so much to make hard work go against the grain." The highest study of mankind is man. The most important study of mankind may be fairly stated to be the brain of man. Now in the treatment of all that appertains to mental diseases we in the practice of our specialty require not only the knowledge of the practitioner of medicine, but much superadded knowledge, so that we may suitably apply all remedial means from surroundings, recreations, influences such as music and flowers, to occupations even so apparently monotonous as the wheeling of a wheelbarrow—where lack of intelligence, apathy, or absence of manual dexterity necessitates such a rudimentary mode of employment. In our study of our patients, their physical conditions, their mental formation, and their hereditary excellences or defects, we necessarily must pay attention to the mental and physical qualities of the sane population of the district and make ourselves conversant with their racial characteristics.

[Dr. Campbell then proceeded to give an exhaustive and interesting account of the racial peculiarities of the dalesmen and of the various customs, such as small holdings, intermarriage, and the effects of always living in the same district, which customs are all rather favourable to the spread of insanity. He then passed to]

THE RECENT INVASIONS OF CUMBERLAND.

Westmorland as a county is chiefly pastoral. The industries are not of such magnitude materially to affect the population and the population is pretty stationary. There was a fall in the decade ending in 1881, but a considerable increase in 1891, probably due to the residential attractions of the portion of the county which borders Windermere. It is far different with Cumberland, with its railway development and its iron and coal industries. I have in the earlier portion of my remarks touched on different invaders who settled in this county; but in my own time I have seen an invasion and settlement in three localities by three different nationalities. I believe good results have followed from the one settlement so far as lunacy is concerned, negative so far from the second, and positive harm from the third. The first is a settlement of railway officials, principally from Scotland, in Carlisle; they are, of course, picked men, educated, reliable, and necessarily steady. The prosperity of the Presbyterian churches in Carlisle is a testimony to this. The fact that many of the principal medical men in Carlisle and all the bank managers but one are Scotch, and the fact that, in spite of the close proximity of Scotland, yet there are fewer Scotch patients than Irish in the asylum, bear out my contention. The second set of settlers are Cornish and Welsh. So far they have made little impression on the district beyond adding to its musical talent. The musical talent is very deficient in the native of Cumberland and Westmorland; until late years it has not been cultivated. Voices are rather harsh and unmusical. The third set of settlers may have given valuable service from their labour, but have been, I am certain, an expensive importation—the Irish in the coal and iron districts in the west. The Irishman who comes to this country and secures employment at high wages, away from his home, his mother, his sweetheart, his respected priest and confessor, is placed in a position he has not been educated up to; he succumbs to the unwonted luxuries and excesses. As a lunatic patient he is full of fight, noise, and destructive qualities. Most of the troublesome patients at Garlands Asylum are Irish, many of them come from county Down, many from one place—Castlewellan. It may be that Ireland sends us just the worst specimens she has, but our experience of the Irish has been unfortunate. It is said that their children show extreme aptitude at school, but I fear this settlement will produce a very unstable and unreliable addition to the county stock.

[Dr. Campbell then proceeded to an account of the Cumberland and Westmorland Asylum, giving many interesting facts connected therewith, among others the following:]

BODILY DISEASES; CAUSES OF DEATH.

In the third year of the existence of the asylum a certain number of patients were attacked by dysentery and fifteen of them died. Dr. Clouston, the then superintendent, considered the disease due to sewage exhalations, and contributed a valuable paper giving his views and an exhaustive account of the outbreak.[1] During 1874 eight cases of enteric fever occurred; three cases proved fatal. I was convinced that the ultimate cause of this outbreak was due to insufficiency of water, the proximate cause to the stoppage of a drain. The original water-supply had never either been adequate nor was free from suspicion of contamination, and this outbreak really occasioned a proper and pure supply of water to be got and caused the whole sanitary arrangements to be put in proper order, since which time we have had an extraordinary immunity from intestinal ailments, with the exception of the rather wonderful case which I now relate. In 1892 a cesspool, which had been in use in the early history of the asylum, and which had been used during the outbreak of dysentery I told you of, was, after being unused for twenty-six years (having been first filled with quicklime, then left standing open to the air), being pulled down by a party of patients; one of the patients engaged in this work took dysentery and died from it. That germs of disease can retain their vitality in a suitable nidus for unlimited periods is unquestionable; the history of anthrax proves this even more strongly than most diseases. No death had occurred at Garlands from dysentery, diarrhœa, or typhoid fever for more than ten years until this death took place. The death-rate from age is much increased; from general paralysis it is lower, and from phthisis slightly less. I believe asylum-caused phthisis is decreasing. Though we have had an occasional case of zymotic disease sent in we have had no spread of such disease and none has originated. The only series of deaths of later years in this asylum which call for remark was from an outbreak of pneumonia,[2] caused, I considered, by septic inhalation from razing an old and filthy set of farm buildings. Fourteen males and five females were affected and the mortality was high.

[1] Sewage Exhalations the Cause of Dysentery, Medical Times and Gazette, June, 1865.

[2] Remarks on Pneumonia as a Cause of Death in Asylums, THE LANCET, March 19th, 1892.

[Dr. Campbell, in concluding, compared the modern legislative restrictions of asylums with the happy-go-lucky methods of the old days:]

Now we are legislated for and have rules for nearly everything, from keeping the case-books to certain forms of treatment, and the incessant and endless certification of patients leaves little time for medical treatment or research. One looks back to the halcyon days when such things were not, and when one only returned the name of the bodily and mental disease and had no Local Government auditor. This change of attitude on the part of the Lunacy Commissioners is accentuated by the remarks now frequently made in reports as to finer pathological research. Since 1867 a post-mortem examination has been made in the case of every death at Garlands and full notes kept of the appearances, and the death certificate given in accordance with the evidences. Before, however, results are arrived at which will much modify our present early treatment of the cases we look upon as curable much patient, laborious, and combined research must be effected and facts hitherto undiscovered must be produced. The difficulties in the way of pathological investigation are great, and a very important one is that few cases of the curable type die in any one asylum during the early stages of an acute attack. In those cases that remain for years and then die from age or disease the common condition of dementia is present; the brain condition which produced the original attack has had years in which to become altered. It is not given to all asylum medical officers to be "Admirable Crichtons" and to do good pathological work; aptitude, special training, leisure, and inclination are all required, and are seldom found combined with the qualities which go to make the successful asylum physician and the able general director. The appointment of a recent graduate as fourth or fifth assistant and pathologist does not seem likely to my mind to give the results wished for. The action of the London County Council is a step in the right direction—to have and to pay a properly skilled and trained pathologist, exclusively devoted to exhaustive and elaborate pathological research with time and skill which no thinking person can suppose are at the disposal of medical officers whose attention is properly taken up with clinical and other work. I believe if a combination of the smaller asylums were formed to have among them a pathologist and laboratory we should be more likely to attain good results, and I am sure many committees would agree to contribute in this direction. Criticisms of our want of successful treatment in asylums, and want of energy in the matter of contributions to medical literature, at times come to us from men whose work and experience are things of the past or never existed, and whose own record of work barely warrants the tone of denunciation. A perusal of the indices of the *Journal of Mental Science*, or, better still, an attempt to write an original article on some subject connected with the treatment of insanity or asylum management would be a corrective of value. A proposal for a revival of collective investigation among members of the Medico-Psychological Association made by Dr. Robertson (Murthly) was carried at a Glasgow meeting in March, 1895, and a similar proposal by Dr. Mercier was subsequently carried at a London meeting in May, 1895. Without interfering with this, I am of opinion that much would be gained if each year all the superintendents of public asylums devoted a small portion of their report to one subject and gave the experience of their district In the year of the census they might deal with the proportion of lunatics to the population, and in each of the intervening years they might agree on one subject, such as: Is general paralysis increasing? Is puerperal insanity decreasing? Are cases of acquired epilepsy more rare among the admissions? Is congenital imbecility becoming more common?

Dr. IRELAND, in proposing a vote of thanks to the President for his interesting address, was struck by the novel point touched on of change of type, and thought cases of mental disease were formerly more acute. He thought change in the character of mental activity also appeared in mental disease, and a change in the character of the delusions of the insane might be the result of education.

Dr. GAIRDNER, in seconding the vote of thanks, thought no conclusion could be arrived at on the subject of the increase of insanity. He hoped it had not. On the question of the influence of race, Dr. Campbell having experience of both England and Scotland, was well qualified to express an opinion. There was a tendency to over-value the importance of race, and to assume that hereditary tendencies were stereotyped and could not be grown out of. The people of Tasmania formed an example of a people largely descended from criminal population which appeared to have steadily and quickly out-grown their hereditary tendencies. He also thought that the circumstances under which a people lived exercised great influence, and he compared the French people with the French Canadians. The French Canadians were one of the most prolific races in America, and in France the population was almost stationary. It was curious that while small landholders were decreasing in this part of England great efforts were being made to increase the class in Ireland with apparently good results in both cases, possibly because the circumstances of the two races were so widely different. The vote of thanks was carried unanimously.

Certification of Insanity.

Dr. RAYNER then opened the discussion on the Certification of Insanity in its Relation to the Medical Profession. He said the popular idea appeared to be that the present certificate was a source of power and profit to the members of the medical profession. He calculated that the signing of lunacy certificates produced an average annual income of 5*s.* to each member of the medical profession in this country. As to the power, instead of being considered a valuable privilege a large number of medical men refused to exercise the privilege and a larger number were most unwilling to exercise it, chiefly for the reasons that signing a certificate often resulted in the loss of patients, and the enmity of the patient and his friends, and was liable to be followed by legal proceedings in spite of the protection supposed to be afforded by the Act. Another objection was that the medical man was obliged in filling up the certificate to divulge professional secrets, for though it was not supposed to be published the contents in the ordinary course became known to a considerable number of persons. The present system was defective with regard to the patient by the delay necessitated, it not being possible to certify until the condition was fully developed and the period during which recovery was most probable was passed.

In the discussion which followed, in which Dr. TURNBULL, Dr. U. WOOD, Dr. YELLOWLEES, Dr. URQUHART, Dr. N. KERR, Dr. MCDOWALL, Dr. MACLEOD, and Dr. W. F. ROBERTSON took part, a general agreement was expressed that the present mode of certification of the insane was defective, and the following resolution, proposed by Dr. RAYNER and seconded by Dr. U. WOOD, was passed:—"The Section of Psychology recommend that the Council of the British Medical Association should consider the advisability of obtaining for England some provision for the temporary detention of incipient and non-confirmed insanity similar to that which obtains under the Scotch Lunacy Act."

Treatment of Mental and Nervous Diseases by Animal Extracts.

Dr. ALEXANDER ROBERTSON read a paper on the Treatment of Mental and Nervous Diseases by Animal Extracts. After some remarks on the treatment of mental cases by the application of heat and cold to the head, mechanical stimulation of the brain through the skull by percussion, the application of electricity—the constant current being passed through the brain by placing one electrode in the nose far back, and the other on the skull—hypnotism, &c., Dr. Robertson gave a detailed account of the treatment of cases by myeline, cerebrine, thyroid, and suprarenal extracts and orchitic fluid. The only undoubted success was obtained with thyroid extract, some cases recovering which had been regarded as incurable.

Dr. W. F. FARQUHARSON also read a paper on the same subject giving an account of thirteen cases treated with thyroid extract as recommended by Dr. Macphail, but he had not found the results satisfactory.

In the discussion which followed it was generally considered that treatment by thyroid extract promised good results and should be used in cases in which it was not contra-indicated.

Dr. NORMAN KERR read a short paper showing the evolution which had taken place as to the absence of responsibility in those suffering from delirium tremens and quoting numerous legal decisions.

PATHOLOGY AND BACTERIOLOGY.

WEDNESDAY, JULY 29TH

Address by the President of the Section.

Dr. A. SHERIDAN DELÉPINE, Procter Professor of Pathology in Owens College, Victoria University, delivered the

following address on the Place of Pathology in Medical Education. He said:—

The tendencies of our system of medical education have for some time given rise to adverse criticism, much of which, I fear, is well founded. Quite lately the General Medical Council has had again under its consideration a motion regarding "the need for reform of the medical examination system."[1] Pathology forms such an important part of medical science that any question touching medical education necessarily concerns teachers of pathology, who should do their utmost to make their subject useful and not a stumbling block to the medical student. This is all the more important as pathology has only of late been recognised in our universities or colleges as a subject worthy of a special chair. To quote Professor Hamilton's words:[2] "It will, I think, be granted that the pathology of to-day is not delimitable merely as a matter of pure morbid anatomy, pathological histology, pathological physiology, pathological chemistry, or clinical medicine, but that these are simply the members of a great body and that they are indissolubly bound together."

[Professor Delépine then entered upon an eloquent defence of the scientific physicians and the need for training students in science. He acknowledged that students were sometimes taught a mass of useless things, but the fault of this lies not in science, but in the manner of teaching. He continued:]

The conditions of life are so complicated, especially in the case of the civilised man, that a mere superficial examination of natural phenomena by means of our unaided senses would seldom have led to more than rough guesses regarding the causation of disease. If this be doubted, let it be remembered that it is not many years since there was a general belief in the production of frogs out of mud, of maggots out of flesh, of micro-organisms out of infusions, and that even in this century it was only by very carefully planned experiments that it has been proved that life, as it is known to us, is invariably a continuance of pre-existing life. The difficulty with which the nature of things can be apprehended might encourage scepticism and lead to a want of confidence in the use of science. I think this kind of doubt has been justly deprecated by Claude Bernard when he says: "The sceptic is one who does not believe in science, but has confidence in himself; he believes enough in himself to deny science and to affirm that it is not governed by fixed and definite laws. The doubter is the true scientist; his only doubts are about himself and his own interpretations, but he believes in science; he admits that even in experimental science there is a criterion or absolute scientific principle. This principle is the 'determinism'[3] of phenomena, which is absolute as well in the phenomena occurring in living organisms as in those taking place in non-living bodies."[4] I think that such an attitude of mind should simply induce us to be modest in our conclusions, but should not deter us from studying the relations of phenomena occurring under our eyes and tracing these relations as far back as the possibilities of accurate observation and reasoning will allow. Primary causes may be left to the speculation of philosophers, and we should be careful not to fall into the errors of certain Greek medical schools, which, having the substance of the sound Hippocratic teachings, ran after the shadow of vain speculations regarding the ultimate nature of things. Though some clinicians may sneer at the pretensions of science, they do, and must, as a matter of fact, constantly make use of results obtained by scientific workers. Whether they do so as a result of conviction or for appearance's sake does not matter, for in any case they obtain the benefit which they look for.

[Proceeding, Professor Delépine gave examples of various methods of investigation, &c., which clinicians owe to laboratory workers, and then continued as follows:]

I wish to submit to you certain suggestions regarding the teaching of pathology, and, if time permits, I hope some opportunity will be found at the end of one of our meetings for a discussion of this question. I may say at once that what I consider true with regard to teaching seems to me equally true with reference to examinations, for teaching, properly conducted, should provide the information wanted by the student in order that he may prove a good and successful worker during his professional career, and examinations have no other object than to find out whether this result has been attained. They should give the means of testing whether a man is capable of using in practice the knowledge which he has acquired. It will simplify matters if, in order to give a more concrete form to my ideas, I ask you to suppose that we follow a student desirous to gain personal experience in his study of cases, surgical or medical. 1. In the wards of the hospital he is shown how to recognise the presence of certain symptoms and from this to establish a diagnosis; he then sees various modes of treatment, surgical or medical, applied, and is made to note the course of events that follow, being thus initiated into the art of prognosis. Here the only means he has to test the accuracy of the views expressed to him by his teachers are the effects of treatment and the correctness of the prognosis. 2. In the post-mortem room he has an opportunity to see for himself the gross lesions corresponding to some of the symptoms to which his attention has been attracted during life. The meaning of the appearances due to alteration of size, shape, colour, &c., have to be explained to him as far as it is safe to do so from a naked-eye examination. The teaching in the post-mortem room cannot go further and is necessarily fragmentary. 3. It must therefore be supplemented by demonstrations of museum specimens, by which complete series of lesions, some of which occur rarely in the post-mortem room, can be made to illustrate the coarse anatomical changes produced in the body by disease. Such specimens being provided with short clinical histories, there should be as little room for speculation as possible regarding the nature of the symptoms associated with the lesions. This general study of morbid anatomy is specially useful in directing the mind to the parts of the body which are most generally affected by disease and to the way in which certain symptoms are mechanically produced. Naked-eye anatomy, however, gives very little information regarding the nature of the reactions of the organism to morbific agents; it seldom gives the means of finding the actual cause[5] of diseases, and it must be admitted that many of the naked-eye appearances are so ambiguous that even an experienced morbid anatomist is often mistaken as to the meaning of lesions observed in the post-mortem room or in the museum. 4. In the histological laboratory the student sees the changes of structure which give rise to the appearances observed in the post-mortem room, and here he begins to be on firmer ground and better able to acquire a knowledge which will depend less on an extensive practical experience than on well-trained powers of observation. The reasons for this are: (1) that all the organs of the body are composed of a few elementary tissues; (2) that these tissues are composed of cells which have many properties in common; and (3) that the morphological changes indicating the reaction of these cells to pathogenic agents are comparatively few. It is, therefore, possible for a teacher to impart within a limited space of time and by means of actual demonstrations a tolerably complete and accurate notion of the anatomical changes produced in the organism by disease. It is to these advantages and not to any special fancy for microscopical work that pathological histology has taken such a leading part in the study of disease. If all the morbific agents produced essentially different reactions in the cells cellular pathology would give infallible indications by means of which diseases could be accurately separated from each other. Unfortunately this is not always the case; but even after this admission I feel quite justified in asserting the primary importance of morbid histology. Pathological chemistry, though growing rapidly in importance, is still too speculative to be placed on the same level as morbid histology from an educational point of view, and as nearly all the chemical methods used in the investigation of disease are similar to those taught in courses of physiological chemistry it seems to me that at the present time the laboratory of pathological chemistry should be reserved for advanced workers prosecuting investigations rather than for the purpose of systematic teaching. This question, however, has to be determined in each school by the provisions which have been made for the teaching of physiological chemistry. 5. We now come to the most difficult part of pathology. So far we have had to deal only with the objective parts of the

[1] Brit. Med. Jour., 1896, vol. i., pp. 1370 and 1397.
[2] A Textbook of Pathology, vol. i., p. 7, London, 1886.
[3] By this word must be understood in physical science the invariable relation existing between cause and effect.
[4] Claude Bernard: Introduction a l'Étude de la Médecine Experimentale (De l'Idée a priori et du doute), p. 94 (Paris, 1865).

[5] I use the word "cause" in a very limited sense; as, for instance, applying to a pathogenic bacterium, a poison, &c.

subject, with facts which necessitated chiefly powers of accurate observation, and which could all be easily demonstrated. When we come to deal with causes of disease and with the way in which lesions are produced we must necessarily introduce into our work induction, deduction, and experimentation. When a number of facts seem to indicate that two or more phenomena are correlated and due to the action of a certain cause we feel generally when dealing with biological problems that we may have overlooked many factors, and therefore we have to test our views by experimentation. Experimentation is not, however, always guided by direct observation, for it often happens that the causation of certain lesions is inferred from what we know of the causation of other more or less analogous lesions.

The nature, the duration, and the difficulty of many of the experiments which have been made for the purpose of testing theories touching the causation of disease and the production of lesions make it difficult to teach the whole of this part of pathology by means of demonstrations and practical classes, and it is in this case that systematic lectures or text-books are the most justifiable and, in fact, necessary. Etiology and pathogenesis cannot be put aside, for much of the advances which have been made in the art of prognosis, in the treatment, and in the prevention of disease are based on our improved knowledge of these subjects. Bacteriology, however, lends itself specially well to practical work, and I believe it would be beneficial to most medical men to have a more practical knowledge of this subject than they are generally made to acquire in the course of their studies. The conclusion which I draw from all these considerations is that students would obtain a more useful knowledge of medicine if they had fewer lectures and more practical courses. They should be made to attend thorough practical courses on (1) pathological anatomy, histology, and chemistry; (2) bacteriology as applied to the study of infectious diseases; and (3) general clinical medicine and surgery, with special courses in special branches of clinical work, such as diseases of women and obstetrics, diseases of children, infectious diseases, mental diseases, diseases of the eye, of the ear, of the throat, &c. Systematic lectures should be confined to courses on: (1) etiology of disease and pathogenesis; and (2) general considerations regarding the practice of medicine and of surgery. These courses should be as short as is compatible with a clear exposition of those principles which but very few students would be able to formulate for themselves from the study of facts. Finally, I wish to say that if in expressing my views I have wounded the feelings of any who have opinions differing from mine I will ask him to apply to me the words of Harvey: "I would not charge with wilful falsehood anyone who was sincerely anxious for truth, nor lay to anyone's door as a crime that he had fallen into error."[6]

OPHTHALMOLOGY.

Address by the President of the Section.

Dr. DAVID LITTLE, Lecturer on Ophthalmology, Owens College, Senior Surgeon, Royal Eye Hospital, Manchester, in his observations on the treatment of certain forms of cataract said: My first duty, gentlemen, on taking this chair is to tender my thanks to the Council of the Association for the great honour that has been conferred upon me by asking me to preside over this Section.

In view of the important papers before us it is not my intention to occupy your time by a lengthened address, but I should like, with your permission, to refer very briefly to some personal experience in one or two practical subjects not touched upon in our programme, and, first, as regards the treatment of immature senile cataract. When incipient cataract has advanced to a stage when vision is so impaired as to render the patient useless for any occupation it is clearly our duty to relieve him if we have reasonable means of doing so. To be kept waiting in a semi-blind condition for long and indefinite periods—perhaps years—is a great hardship to those people in many ways and is very depressing and often injurious to health. There is abundant evidence that such cases can be safely dealt with by operation. The question appears to be what is the best operation to perform, whether to extract the immature cataract at once or mature it before extraction by iridectomy and trituration of the lens, as recommended by Forster. The objection, I think, to the former method is the liability to retention of cortex and its consequences. In old people cortex left in the pupil is slow of absorption, and during that tedious process iritis is apt to occur, sometimes very severely. With a view to avoid irritation from retained cortex Mr. Tweedy ruptures the capsule at the periphery after making the iridectomy, so that if the cortex should be left behind it is retained within the capsule and is likely to be harmless. The main objection some surgeons have to trituration of the lens is the fear the operation may damage the eye by undue irritation and iritis and synechia, a condition of things which might militate against the success of the after-extraction. I have had a fairly good experience in both operations, sufficient, I think, to enable me to form an impartial judgment on their respective merits. Up to five years ago I was in the habit of extracting unripe cataracts in necessitous cases every now and again by the combined method in the ordinary way, with this exception—to avoid as much as possible leaving cortex in the pupil. I made the section unusually long so as to admit an easy escape of the lens with the least possible amount of pressure. In some cases the result was all that could be desired, in others again the cortex found afterwards in the pupil often gave trouble and anxiety by iritis. Without troubling you with any statistics I may just say the results on the whole were not equal to those of extraction of a naturally mature lens. For the last five years I have adopted Forster's method in about forty cases in hospital and private practice. To give it a fair trial I made a selection of what I thought were really suitable cases, following Forster's recommendation as closely as possible. They were cases of uncomplicated senile cataract with soft cortex in which cortical opacity more or less existed. Forster considers it essential that cortical opacity must have begun. The vision of these eyes varied from 10 to 20 Jaeger, and the progress of the opacity was known to have been exceedingly slow, extending in some cases over some years. After making a small iridectomy well back in the sclera I massaged or rubbed the centre of the cornea with a vulcanite or tortoise-shell spoon for about two minutes, exercising care and judgment in the amount of pressure. Beyond a little hæmorrhage occasionally in the anterior chamber nothing unusual happened in the operation. In no case did undue irritation follow; nothing approaching iritis—the opacity was complete in most cases within a fortnight, in a few it was nearly a month; no atropine was used before operation and seldom afterwards; the after-extractions were all normal, there was no escape of vitreous, the healing process went on favourably, there was no loss of the eye, and the ultimate results were on a par with extractions of a naturally mature lens. I have been much impressed with the safety and efficiency of the operation. If it be done with reasonable care and judgment I feel sure it is as safe as any operation can be and I shall continue to practise it and recommend it with perfect confidence. There are cases, however, in which I doubt if it would answer. Cataracts of deep amber colour, uniformly hard throughout and no soft cortex, with a good deal of transparency, sufficient sometimes to enable one to see the details of the fundus,—these cases, in my experience, can be safely extracted at once and with excellent results, and I have therefore never tried Forster's method in that class of case. I think trituration might possibly cause undue irritation, or, what is more likely, it might fail to complete the opacity.

In zonular cataract and in some cases of traumatic or soft cataract in young subjects it is a favourite practice of mine to extract the lens with a Teale's suction curette in preference to linear extraction. I can rely upon it to clear a pupil more effectually than by linear extraction and I have often been surprised it is not more generally used. It is said there is a danger of introducing septic matter through the tube and of sucking iris and vitreous, but if the curette is made clean and aseptic, and kept within the area of the dilated pupil and not passed too deeply, accidents of that kind need not be feared. If I have reason to suspect a rupture of the hyaloid I do not use it. In zonular cataract I have rarely found excision of a small portion of the pupillary margin of the iris improve vision, at least to any appreciable extent, and for many years I have given it up. I either leave the case alone or resort to discission and suction. In cases of tough capsule obstructing vision after cataract operations, if the needle or double needle operation fails to cut it or displace it permanently I employ a Wecker's scissors, and have

[6] Harvey: An Anatomical Dissertation upon the Movement of the Heart and Blood in Animals. Dedication 1628. Rendered into English for G. Moreton. Canterbury. 1894.

found it answer admirably, better than a cataract knife, for instance, with the additional advantage that there will be no dragging of the iris when adhesions are present. Wecker's scissors is also best adapted in making a pupil when it is partially closed and drawn up from iritis after extraction. We sometimes see an eye with a white irregular mass of shrivelled up calcareous-looking capsule and lens filling up the whole pupil and presenting rather an unsightly appearance. These people consult one for cosmetic reasons and ask if it cannot be removed. I have operated upon several such cases in my time with good cosmetic effect. I make the ordinary cataract incision with iridectomy above; if there are iritic adhesions I separate them; very often there are none. I then introduce a stout pair of capsule forceps (specially made for the purpose, ribbed on the inner side of each blade), and by gentle traction draw the white mass out; sometimes I have had to pass one blade behind and the other in front to get a firm hold. Sometimes vitreous escapes, sometimes not. It may not be bad practice to leave such cases alone in case of inflammation and greater disfigurement. In the few cases I have done nothing of the kind has happened. If the iris is healthy looking and the tension normal I have no hesitation in recommending operation. In traumatic prolapse of the iris the best practice I have found is to slit up the sac throughout the whole length of the wound with a Graefe's knife under antiseptics, and if iris remains in the lips of the wound to excise it. Rapid healing takes place, and the result is a firm and flat cicatrix, with little or no synechia, and the eye is left pretty safe from future infection. Such good results are not by any means always obtained by the other recognised methods, as excision, bandage, &c. I have never found eserine or atropine reduce a prolapse, even when it has been very small and recent. Errors of refraction form a large proportion of ophthalmic work nowadays. We have various ways of estimating refraction errors. In my own practice I rely on retinoscopy and testing the vision with Snellen's test types. My object in referring to this subject is to say that I paralyse the accommodation with atropine in a large proportion of young subjects in the first examination. I do not mean in every case, but in a large number of them, and it is astonishing how great the spasm that is often found to exist. By paralysing the ciliary muscle we ascertain the full amount of error and are able to correct the defect most accurately. These young patients on their first visit are often nervous and unreliable and atropine gives one independence; besides the examination can be made more easily and rapidly and time is saved.

ETHICS.

WEDNESDAY, JULY 29TH.

Medical Aid Associations.

Dr. LESLIE PHILLIPS read a paper on Medical Aid Associations. He said:—The civil responsibilities of medical practice have been within the last few months very strikingly shown. If these responsibilities are to be gauged by such damages as was the case in this cause it will behove members of the profession to act in concert to see that all work undertaken is adequately remunerated. Whether club work has ever been properly remunerated is more than doubtful. I personally believe that the orthodox 3*s.* 6*d.* or 4*s.* per year per member paid the clubs for medical attendance and medicine is not only inadequate but absurd. None but medical men would for a moment accept or be content with such a sum as an insurance against a sickness risk, and the profession will be well advised at the present time to stand out with determination for a remuneration adequate to what is expected from them and what is given by them. I can understand that in poor agricultural districts the members may be unable to pay as much as in our manufacturing towns, where workmen earn good wages; but in the latter case I believe something like 10*s* a year per member should be insisted upon by the surgeons, and I cannot see that this would unduly press on the insured member. My present point, however, is to remind you that years ago I showed, and it has not been contradicted, that some medical aid associations pay their surgeons a cash salary at the rate of less than 6*d.* a year per member. It will be well for the profession to bear in mind that statisticians alike of Europe and America, are agreed that the poor are becoming richer, and that the argument that the masses of the people are becoming ever poorer and poorer is used only by the time-discredited agitator. In England wages have increased 40 per cent. since 1860. Under such an economic condition we should have looked for a commensurate appreciation in the provident fees paid by workmen to medical men, instead of which we have been brought face to face with the pretentious medical aid principle, the effect of which is to ever reduce the payments made for medical advice and to extend the principle of sweating to our profession. This sweating has been aggravated by the claim seriously put forward by the promoters and supporters of these medical aid associations that the Legislature should be asked to enact that the medical profession shall be compelled to accept what these gentlemen choose to give their surgeons both in the way of work and remuneration. It is to the credit of the Oddfellows' Annual Movable Committee that they rejected in May last a resolution to this effect and affirmed the common-sense position that the medical profession were as much justified in combining for the protection of their own interests as any other class in the community. I congratulate the profession on its awakening to what this medical aid principle means and upon the concerted determination it is showing to have none of it. Coöperative doctoring of the type we get in some medical aid associations—i.e., where the medical man is the exclusive servant of the committee, deprived of that liberty to practise privately which his diploma gives him, and subject to a degrading control—is opposed to the medical interests of the public, and especially of the poor, and the profession must not tolerate it. Nothing analogous is allowed for a moment in the legal profession, and shall the medical profession, whose foremost care is the health of its patients, have a lower standard of ethics?

I would give one important word of warning. The time is rapidly approaching when there will be change of name of these associations without change of the basis on which they rest. The name is an opprobrious one and will be changed. The profession must be watchful not to be misled by the simple dodge of substituting another name for either existing or new medical aid associations. At the seventeenth annual conference of the Friendly Societies' Medical Alliance last April a suggestion was made to omit the word "aid" from the titles of these associations. It appears to me that the time is ripe for the British Medical Association to ask the Legislature to take steps to prevent the use of the word "medical" in titles of concerns owned by persons who possess no medical licence. The use of the word has become altogether too loose and in many cases is now quite unjustifiable. Medical hall applied to a druggist's shop is misleading; medical association applied to one of these associations for obtaining cheap doctoring is quite out of place. If it means anything it means an association of medical men. This, however, is a minor matter. The vital distinctive feature of the movement, let it be called what it will, is "farming." The time and services of a medical man are wholly or in part farmed by a layman or a body of laymen who make money thereby in one or both of two ways. There is made either a direct profit, as by obtaining, say, 4*s.* from the patient and paying the medical man 2*s.* 6*d.*, or, as is more usual, by obtaining for about 6*d.* or 1*s.* skill and labour for which on club terms 4*s.* was formerly contentedly paid. I have already stated my views that even this 4*s.* basis was, and is, totally inadequate. The importance of this warning with regard to names and principles is exemplified at the present time by the case of the Bridgnorth Infirmary. Here a responsible hospital committee, in spite of the protests of the majority of the medical staff, employ a salaried house surgeon, making it a condition of his appointment that he earns money for the committee by carrying on a provident branch, which is really a medical aid association. The proceeds of this branch are used for the purpose of supporting the hospital. Here the skill and labour of a medical man are farmed to run a medical aid association for the purpose of supporting a charitable institution. Those who care nothing for the well-being of our profession may say: "Here is a capital way for the public to exercise their charity without putting their hands in their pockets. So long as it can be done at the expense of the profession by farming medical men why should the public find the money? Never mind the profession; they are unbusinesslike men who will not notice the sublying principle, or if they do they will as usual exercise their traditional self-sacrifice and be content to submit to be farmed to run our up-to-date coöperative

doctoring scheme. So long as our medical servant has £70 a year and board he gets the market price of his labour, while we need not bother ourselves about the fact that the interests of the practitioners of the town suffer. Indeed, it will be better for us, for with the extension of this coöperative system the profession will become poorer, competition within it greater, and the market price of our medical servants less."

Farming medical skill and labour must not be allowed; it is the principle at the root of all this medical aid business which has brought a measure of degradation on our profession such as it has never before suffered. Once admit the right of laymen to systematically farm professional services and allow the practice, and as surely as the night follows the day the profession will lose in status and usefulness as well as in money. The thin end of the wedge has been driven well home by certain people in claiming and using the right to farm medical services. It is a principle capable of indefinite extension to the destruction of the independent practitioner, but the principle is one which is absolutely incompatible with those principles upon which our profession exists, and, happily, we have seen this at an early stage of the movement. We will have none of it. The employment of medical men in the services and on ships is not farming. They do not make money for their employers. Their engagement is essential to the well-being of the community. There can be nothing essential in the farming of a medical man in a town where medical men practise. Do hydropathic establishments farm the services of medical men? I do not think so largely. If so I see no need for it. If the hydropathic establishment is in a town such farming injures the resident medical men. If it is in a rural district it will suffice that the medical officer be not the salaried officer of the establishment, but receive all the fees earned by his skill. I venture to think that this section of the British Medical Association would be well advised to no longer be a party to the inertia of the profession, but, throwing off all unreasoning and unthinking hesitation, declare "that it is unprofessional for any registered practitioner to farm his skill and labour to any person or persons not possessing a medical licence." This would condemn the principle of farming medical men by lay persons and would be a distinct advance in the settlement of this and allied questions. In conclusion, let me say one word about those medical aid associations owned by insurance companies. Week after week for some years I have read the following advertisement in the columns of the *Capitalist*:—

"COLLECTORS AND CANVASSERS.

"Respectable Energetic Men wanted by the London and Manchester Industrial Assurance Company, Limited.

"LIFE AND MEDICAL AID ASSURANCE. Liberal terms to suitable men.

"Apply to the Directors, 40 to 47, Southwark Exchange, London, S.E."

It need hardly be pointed out that the insurance companies which have a medical aid branch effect an ever-growing business at the expense of medical practitioners by attracting their patients. This can only be done by means of carefully worded circulars and by astute canvassers who set out the advantages of joining the society. Neither need it be pointed out that such circulars and canvassing would not for a moment be tolerated on the part of a private practitioner. Why, then, do we tolerate these insurance companies exploiting medical practice? It is not material to the issue that they allege they make no profit out of such practice. Cheap doctoring is provided to the public as a bait to take life and other assurances. The offices can well afford to provide this cheap doctoring, because they do it at the expense of the medical profession. To say that the whole of the medical attendance fees go to the medical men does not for a moment justify the thing. The fees are totally inadequate, and the profession suffers by the difference between adequate and inadequate charges. Why does the profession tolerate this? I confess I do not know. It is some years now since I first asked the question, but the system is still allowed to flourish. Canvassing and advertisements are the breath of life to these insurance-company-owned medical aid associations. It follows that to hold such appointments is unprofessional, and the sooner the following authoritative declaration is made by our ethical section the better—viz., "It is unprofessional to hold office in any club or similar organisation in which advertising or canvassing is resorted to." I would direct attention to the fact that the want of accord among the licensing bodies in dealing with those of their licentiates who take medical aid association appointments has caused, and will continue to cause, much heart-burning. For example, Mr. Raye of Banbury voluntarily gave up a medical aid appointment in obedience to a strong resolution of his college (the Royal College of Physicians of Ireland), but the appointment was instantly taken by a licentiate of another college whose ethical standard as regards medical aid associations appears to be lower. Joint action by all the colleges is called for and it is to be hoped that after so much ventilation of the subject such joint action will ensue. It would probably have weight if the British Medical Association approached the licensing bodies asking them to now express for the guidance of their licentiates their official views on medical aid associations. In the meanwhile, men like Mr. Raye and those at Lincoln deserve well, and an effort should be made where possible to get them appointments so that they may not suffer for placing themselves in line with the views of their professional brethren.

Mr. C. S. LOCH read a paper on

The Abuse of the Out-patient Departments of Hospitals.

He said:—The in-patients treated in hospitals in London number about 87,000 in the course of a year; the out-patients number about 1,299,000, and in addition to this million and a quarter there is another large population of out-patients—those who attend free dispensaries. In London there are 12 voluntary hospitals with schools and 90 without schools, there are charitable dispensaries, there are 26 Poor-law infirmaries which deal with about 10,500 patients daily, apart from the inmates in the sick-wards of workhouses, and in the course of the year more than 130,000 "permanent," "ordinary," and "midwifery" medical orders are issued in connexion with the 44 Poor-law dispensaries. It has been said that in such statistics the number of out-patients is overstated, for one patient may in the course of the year attend many hospitals and many of the patients come from places outside London; but investigation has shown that the bulk of the out-patients are Londoners resident within the metropolitan area, and after all deductions are made the figures remain—a disgrace to London and to all concerned in hospital administration. These statistics represent an enormous amount of wasted effort, the object of which is to provide charitable relief for a large number of persons suffering from comparatively slight ailments, which could be properly dealt with by general practitioners in the ordinary course of their work. The cases, moreover, are not considered from any side but the medical, and it is very seldom that anything is done to ensure that the patients shall be cared for apart from the gift of medical relief. A medical man who sees out-patients is not a physician only; he is an almoner—as much an almoner as any district or friendly visitor. He is not a professional man merely, doing professional work. He is doing eleemosynary work, and if he is to do it properly he must be guided by the recognised principles of charity, but he has never been trained for his almonership though he has for his profession. There is seldom any register of out-patients, and when there is one it has no index which could be quickly referred to in order that applications might be checked. The crowds are so great that any ordinary business-like arrangement is out of the question; but the patients, though not registered, are numbered and the numbers are printed in reports and made to serve as an advertisement. The hospitals practically compete for the attendance of out-patients, and if one of them adopts an honourable policy of restricting the number of out-patients to such limits as would enable the staff to deal fully and properly with each individual a neighbouring hospital will welcome the rejected claimants. Another evil is the fact that millions of out-patients at hospitals must mean large numbers of patients withdrawn from general practitioners. If there are unlimited out-patient departments the people will have physic for the asking and will not go to the general practitioners, from whom they can only have it for the paying. In Mid-London, for instance, a labourer does not need to provide for his own medical relief on any terms whatever, and he knows it and acts accordingly. Reformers like Mr. Burdett urge that the hospitals should adopt a pay system, and there is ample evidence that the "poor," as they are called, can pay such an amount in small sums as would afford a considerable income to competent general practitioners, for in London in 1894 forty-seven hospitals received £39,767 from patients' payments. The Hospital Sunday Fund is not blameless in this matter. By making its grants not on in-patients only, but on out-patients as well, it puts a premium on the abuse of the out-patient departments, and the Hospital Saturday Fund does

the same thing, though the chairman of the Fund, in his annual address for 1895, spoke out honestly amid the many voices which in this branch of charitable work advocate feeble and unjust administration in the guise of a sympathetic philanthropy. The worst result, however, of medical charity is its influence in encouraging improvidence. We want citizens in our cities, not uncivilised denizens; we want people endowed with foresight, self-supporting, and self-respecting; but the medical charities, as they are at present administered, are a standing advertisement that foresight, self-support, and self-respect are unnecessary in all that series of contingencies that has to do with sickness, and there is a danger lest, through the influence alike of the Hospital Saturday Fund and the unrestricted admission to out-patient departments, a better class of workman should come for charity, making some pretence that it is not charity because he has paid his penny to the collection, and lest the natural social instinct that has created our friendly societies should be weakened or deadened.

With a view to remedying the existing evils the following suggestions may be offered:—

1. The training of medical men in the principles of public charitable relief.

2. The limitation of the number of cases in an out-patients' department to such as can be fully and fairly dealt with during a period of time allotted on the basis of the amount that a medical man would bestow on a private patient in the lower-middle class.

3. There should be a trained almoner at a hospital able to make proper inquiry or to ensure that proper inquiry is made. He or she should stop the "Poor-law" cases as the applicants go away after having seen the medical officer the first time, and unless that officer desires that they should come again their names should be marked in the register as "refused"; if they apply again they should be identified and referred to the Poor-law direct.

4. There should be more publicity. Partly for this reason I think a Central Representative Board desirable. It would have a strong financial position, would be able to promote reasonable changes by grants of money, and might do something to stop the insensate competition between medical charities. In my opinion a rate-aided system of medical relief would not check out-patient abuse, and would, on the other hand, have many injurious results as compared with a voluntary system. If progress is to be made on voluntary lines reliance must be placed on persuasion and education.

THE ANNUAL MUSEUM.

The exhibition was of a thoroughly representative character, and no exception could be taken to any single exhibit on the score that it did not relate in some way or other to medicine. The space in the Drill Hall was entirely occupied by stalls representing the drug, medical appliance, and special food trades, while an annexe contained a very interesting display of aseptic hospital furniture and apparatus for the disinfection on a large scale of clothing and bed linen. There had evidently been a big demand upon the space, since not only were the stalls situated very closely together, but the articles displayed upon them were in many cases so considerable in number as barely to admit of classification. In fact, the profusion of exhibits was somewhat bewildering. All the more are the exhibitors and management to be congratulated on the really excellent and artistic display which the museum as a whole presented. In reviewing the various exhibits shown we shall endeavour in the space at our disposal to confine ourselves only to those which present new features or those which, because of their marked value, merit another word. For this purpose we may conveniently divide the present article into sections as follows: I. Drugs. II. Medical and Surgical Appliances. III. Special Foods. IV. Sanitary Appliances, Disinfectants, &c. V. Mineral waters, beverages, &c. VI. Miscellaneous or unclassified. VII. Literature, &c. This arrangement was adopted in our notice last year, and a similar classification we observe has since been adopted by the museum committee in the printed catalogue of the exhibits.

I.—DRUGS.

A strong feature of this important section of the museum was the display on almost every stall of animal extracts. Tabloids, tablets, palatinoids, and other convenient methods of administering those preparations were in marked evidence. Serums, it was evident, also have now been taken up by most firms. Messrs. Burroughs, Wellcome, and Co. (Snow Hill Buildings, Holborn, and New York), whose display was the most striking, as it was the largest, offered to the visitors some specially fine products to view. Amongst them was an excellent series of micro-photographs taken on thin porcelain slabs and illustrating the character of various organisms. The slabs were illuminated from behind by means of incandescent electric lamps. Further along the stall was an interesting group of specimens showing the various stages in the manufacture of the well-known Kepler extract, the individual and extracted constituents of which (maltose, diastase, phosphate of potassium) were contained in glass specimen cylinders. Next to this, again, was an exhibit illustrating the manufacture and purification of lanoline, and at the end of the stall an exhibit illustrating the manufacture of cod-liver oil, the chief feature in which was a large glass tank full of sea water containing several live cod-fish. It goes without saying that Messrs. Burroughs, Wellcome, and Co. made excellent use of their fine drugs and chemical preparations, including an enormous selection of tabloids, in making the exhibit attractive and artistic. Close by were the deservedly well-known and reliable digestive ferments of Messrs. Fairchild Bros. and Foster (New York), which were arranged in exceedingly good taste. To the right and left of the main entrance were two stalls representing the specialties—chiefly that excellent and convenient form for administration, the palatinoid—of Messrs. Oppenheimer and Co. (14, Worship-street, E.C.); also the bi-palatinoid, by means of which two chemically incompatible drugs may be held apart until when swallowed the contents immediately come into contact with each other, giving rise to a newly formed compound. The advantage of this in the Blaud's Pill for the administration of ferrous carbonate from potassium carbonate and ferrous sulphate is obvious. Bi-palatinoids on similar lines are also prepared, amongst which should be mentioned the compound hypophosphites bi-palatinoid, with or without one minim of pure creasote, compound iron and arsenic bi-palatinoid, and so on. The palatinoid serves excellently also for the administration of volatile drugs, as amyl nitrite, chloroform, ether, &c. The globe nebuliser for converting liquids into the finest possible spray for inhalation and other purposes is an intrument in this display well worth mention.

Messrs. Allen and Hanburys (Plough-court, Lombard-street, E.C.) had one of the largest stalls in an excellent position at the further end of the hall. Conspicuous amongst their exhibits of drugs were the admirable series of preparations containing bynin—an active fluid malt extract—as basis. In addition to byno-hypophosphites, a compound of active malt essence with the hypophosphites of lime, soda, and iron, and the alkaloids of cinchona and nux vomica, they now prepare bynin-amara, which is in reality an improved form of Easton's syrup, in which the ordinary inert sugar is replaced by malt extract with its valuable principles. In conformity with recent experience, this firm also prepare guaiacol in various forms, which has been used in the pure state with advantage in phthisis. Messrs. Woolley and Sons (Manchester) showed some additions of distinct interest in pharmacy and medicine. Amongst these are well worthy of notice the preparation called akolethe, a solution of the sedative principles of opium of definite composition and uniform strength and of value as a sedative in obstetrics; emulsio morrhuæ c. creasoto (50 per cent. oil and 4 minims creasote to each fluid ounce); malto-petrol, a combination or solution of active malt extract with a tasteless and odourless refined petroleum combined with the hypophosphites; "ligno-sulfit," a combination of sulphurous acid gas (SO_2) with certain fragrant principles of the pine and spruce, said to be valuable for inhalation purposes in certain respiratory troubles; an ingenious apparatus in the form of a small pine shrub for diffusing ligno-sulfit; and, lastly, should be added the elegant series of capsules prepared by this firm. Another well-known provincial firm is that of Bleasdale, Limited (York), who had a very fine representation of elegant pharmaceutical products on view. An aqueous preparation of Indian hemp (liq. cannab. ind.) suggested by Dr. Cowan Lees for relief of cough in phthisis and in dyspepsia with constipation; liq. leonurus cardiaca (motherwort), of value in hepatic dropsy, gout, and amenorrhœa; sulphalumic carbonate, suggested in gout; neo-nitrite, a substitute for nitrous ether. To these interesting preparations should be added a fine series of well-made granular effervescent powders and compressed tablets of animal

extracts, and a dried syrup of violets—in reality a dry powder—which will, it is said, keep any length of time under trying conditions.

In addition to specimens of chloroform and chloric ether for which they are well known, Messrs. Duncan, Flockhart, and Co. (Edinburgh) showed some other interesting preparations which together formed a very pretty display. Foremost of these should be noted peptopancreine, a powerful and reliable digestive agent containing active pancreatine, pepsin, and a special preparation of diastase; lacbyne, a combination of extract of malt of British growth with pure unskimmed milk; fluid extract of malt with hypophosphites; and an excellent antiseptic dusting powder composed of zinc oleate, and boric acid intimately mixed with pure wheat starch. To the foregoing should be added an excellent series of capsules, including the compound suggested by Blaud, and potassium bichromate capsules ($\frac{1}{16}$th gr.), and keratinoids soluble in the alkaline contents of the intestine, but absolutely insoluble in the gastric juice. We have already drawn attention to the advantages of chinosol as a disinfectant, antiseptic, and deodorant for which Mr. B. Kühn (36, St. Mary-at-Hill, E.C.) is agent. It is a brilliant yellow powder, easily soluble in water, of a non-caustic and non-toxic character, while it possesses a slight agreeable odour and does not coagulate albumin. On the same stall we also noticed as new additions tannalbin, a new intestinal astringent, being a compound of tannin and albumin made insoluble in acids and the gastric juice by a special process, but soluble in the alkaline contents of the intestinal tract; capsules containing a solution of pure colchicum in natural methyl salicylate, of distinct service in the treatment of rheumatic and gouty affections; animal substances represented in thyradēn-Knoll (thyroid principles) lienadēn-Knoll (splenic principles), supra-renadēn-Knoll (suprarenal gland), prostadēn-Knoll (extract of bullock's prostate), and medulladēn-Knoll (bone marrow principles). We noticed also on this stall some distinct improvements in connexion with the use of ethyl chloride and methyl chloride as local anæsthetics. Thus the ethyl chloride (Bengué) is now provided in nickel-plated cylinders which can be re-filled; and "anestile" (Bengué), a mixture of ethyl and methyl chloride evaporating at a lower temperature than pure ethyl chloride, is supplied in cylinders fitted with a screw cock, by means of which the jet can be turned off and on with greater convenience and ease than before. Various forms of papain, diuretin, ferropyrin, and exalgine were also exhibited at this stall.

Amongst the very numerous preparations shown by Messrs. Parke, Davies, and Co. (21, North Audley-street, W.) there are several which call for special notice. Taka diastase perhaps ranks first in importance. This interesting preparation has already been the subject of analytical notice in THE LANCET. It is a ferment obtained from bran by cultivation upon it of a fungus and possesses a remarkably high degree of amylolitic power. It probably represents the purest form of diastase ever obtained. This firm also supply antitoxins the strength of which they guarantee, while euthymol—a mixture of eucalyptus and thymol—is an introduction of some importance, since already it has been found very valuable for inhalatory and other purposes. Further preparations of interest belonging to this stall are the bi-conoidal nutrient suppositories, a shape admirably adapted for rectal feeding; an ethereal solution of antiseptic soap for application after surgical operations; and ferratin, a valuable combination of iron with albumin. Möller's cod-liver oil exhibit (Messrs. Peter Möller and Co., London and Christiania) served admirably to show the distinct advances made in preparation of this most valuable therapeutic agent. Formerly the livers were allowed to putrify till the softening of the tissues permitted the exudation of the oil, with the result that the product was more or less brown in colour and unsatisfactory both in regard to taste and smell. Möller's improved method consisted in extracting perfectly fresh livers by means of steam. Subsequently every stage in the manufacture up to bottling was conducted in an atmosphere of inert (carbonic acid) gas, the product (hydroxyl-free) proving to be colourless, odourless, and tasteless, whilst also devoid of decomposition derivatives. The exhibit included some interesting specimens of cod-liver oil constituents. New medicinal chemicals and pharmaceutical preparations and specialties were particularly well typified in the exhibit of Mr. W. Martindale (10, New Cavendish-street, W.), who is to be congratulated on the striking arrangement he has effected of a series of fine pharmacopœial products of the excellence fo which his name has long been a guarantee. The list included guaiacol and guaiacol carbonate, moss dried and compressed into sheets admirably adapted by reason of its extreme porosity for absorbing exudations from wounds and rendering them non-putrescent and of especial value in urinary affections, emblic fruits (an agreeable laxative for children), nitro-glycerine tablets, flexible gelatine capsules, ointments with petroleum bases, pastels, medicated chocolate tablets, and urotropine, a soluble diuretic and solvent of uric acid concretions.

The digestive ferments of Messrs. Armour and Co. (59, Tooley-street, E.C., and Chicago) are well known for their strength, reliability, and general excellence. In addition to manifold preparations of pepsin of standard quality they exhibited also desiccated ox-gall suitably prescribed with pepsin in pill form, desiccated blood, beef peptone paste (a vigorous stimulant and nutrient), thyroid tablets, and tablets of the animal substances. New preparations were the predominating feature of the exhibit of Messrs. Arthur and Co. (69, Berners-street, W.). Calling for conspicuous mention amongst these were the various preparations containing gold, notably the liq. auri brom-arsenatis and the liq. auri brom-hydrarg-arsenatis, the preparation of which needs considerable skill and care if they are to be reliable in the treatment of epilepsy and allied affections, for which they have been found serviceable. The value of these preparations has also been established in cases of neurasthenia and in nervous fibrillary twitchings.[1] This exhibit also included tannopumilio, a compound of digallic acid with the terpene (limonene) derived from the pumilio pine, which has proved valuable in unhealthy and excessive perspiration and in dermatitis; rupeol, a highly refined petroleum free from odour and taste; iodoglycerol, an excellent substitute for the linimentum iodi (B.P.), having an irritant effect and being absorbed, it is said, with great rapidity; and a neutral and non-saccharine solution of calcic and ferric chloride (mistura calcis chloridi cum ferro Arthur). Kutnow's (S. Kutnow and Co., Ltd., 66, Holborn Viaduct, E.C.) effervescent Carlsbad powder is already well known. It is prepared from the celebrated Carlsbad spring water, the residue obtained being desiccated and subsequently so prepared as to form an agreeable effervescing compound possessing the same properties as the original waters. The medical visitors to this exhibit were presented with a copy of some clinical evidence of the advantages of the preparation. In the same exhibit was an "asthmatic powder" composed of the leaves of a certain shrub associated with well-known salts to asisst in their combustion. The fumes thus derived are stated to produce considerable relief in the distressing symptoms of asthma and bronchitis.

"Diastol" is the name given by the manufacturers to a preparation which is excessively rich in the peculiar ferment—diastase—of malt. Its digestive action is very high, and the advantage of a perfectly limpid and yet stable liquid possessing this character is obvious. Equally satisfactory in regard to diastasic value is also the standard malt extract, the claims of which have already been tested and confirmed in THE LANCET Laboratory. Both preparations are made by the Standard Malt Extract Company of 23, Billiter-street, E.C., and Liverpool. Messrs. Brady and Martin of Newcastle-on-Tyne had an excellent array of exhibits, but drugs occupied a minor and appliances (especially connected with "x" rays) a major place. They prepare the aural ovoids first suggested in treatment by Professor Gruber, while other interesting novelties consisted in aristol, an iodide of thymol, possessing the advantages, but not the disadvantages, of iodoform; chloralida, a preparation containing chloral, potassium bromide, henbane, and Indian hemp, and regarded as being a valuable hypnotic combination, especially suitable in cases of mental excitability; and elixir aletridis, a uterine tonic and restorative recently employed with benefit in irregular, painful, suppressed, or excessive menstruation. New drugs and chemicals were well represented in the attractive and well-arranged exhibit of Messrs. C. J. Hewlett and Son (35, Charlotte-street, E.C.), amongst which should be mentioned tannoform, a compound resulting from the condensation of gallo-tannic acid and formaldehyde, said to be an excellent remedy for bed-sores and to possess the requirements of a dusting powder; lactophenine, already noticed in our columns as the lactic acid derivative of paraphenetidine and to be preferred in several respects to

[1] THE LANCET, Aug. 3rd, 1895.

antipyrin, whilst possessing also analgesic, hypnotic, and soporific effects; eucaine, related to cocaine and with similar properties; cephæline, an alkaloid isolated from ipecacuanha, and said to be superior to emetine as an emetic; apolysine, like phenacetin, but more soluble, acetic acid being replaced by citric acid, and without unpleasant after-effects; and, lastly, airol, the gallate of bismuth iodide, an excellent iodoform substitute and of enhanced value in the same functions.

Messrs. Christy and Co. (25, Lime-street, E.C.) exhibited some useful and valuable additions. Alapurin, perhaps, ranks as the most recent, consisting of a very highly purified wool fat, with a light and perfectly sweet odour and of low melting point, rendering it soft and supple and free from stickiness. Amongst other preparations of interest was analgen, a "synthetic anti-neuralgic," and said to be quite harmless yet very useful in articular rheumatism; neo-kola, of excellent flavour, consisting of pure kola and containing a high proportion of caffeine. Lastly, the Pasteur Institute in Paris, with anti-diphtheritic, anti-streptococcic, and anti-venomous serum and calf lymphs, were represented by Messrs. Oppenheimer and Son (14, Worship-street, Finsbury, E.C.).

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Vaccination Commission Report.

REPRESENTATIONS have again been made to the Government with regard to the report of the Royal Commission on Vaccination, and in response Mr. Balfour has given an emphatic assurance that the work is being pressed forward with all possible speed.

Infant Life Protection Bill.

The Committee of the House of Lords on the Bill prepared at the instance of the London County Council for the better protection of infant life has presented its report, and on the strength of this report various alterations have been made in the Bill. The chief of these is to substitute for registration of all persons keeping more than one child under five for profit a system of notification to the local authorities. The view taken by the Committee was that if local authorities are notified of the taking of children they will be able to exercise some supervision over their treatment and general upbringing. As the Bill is not to be prosecuted further this session there will be abundant time to consider all its details and to study the report of the Committee.

London University Commission Bill.

This Bill received a second reading in the House of Lords on Thursday, July 23rd, when speeches in its favour were delivered by the Duke of Devonshire, Lord Herschell, Earl Cowper, Lord Playfair, Lord Reay, Lord Kelvin, and the Earl of Kimberley. Lord Herschell, speaking with all the authority of Chancellor of the University, summed up the position of the Senate, saying that they support the scheme, not because they are indifferent either to the standard of education or to the interests of the external students, but because they believe that the present work of the University may be made even more valuable than it is without any such risk as the opponents of the scheme consider must necessarily attach to it; while Lord Reay, discussing in some detail the standard question, said that the only way of raising the standard of teaching at a university is to obtain the best teachers, and a London university once constituted will attract the best teaching power in the empire in the same way as it is attracted to the universities at Berlin, Paris, and Vienna. In the course of the proceedings it came out that Lord Davey has consented to act as chairman of the proposed Statutory Commission.

HOUSE OF COMMONS.

THURSDAY, JULY 23RD.

Rabies.

Mr. H. C. Richards asked the President of the Board of Agriculture whether, in view of the increase of rabies in London and the country, the Government, in the interest of and protection for the public, would consider the advisability of adopting the system prevailing in France, Germany, and other Continental countries of enforcing the muzzling order all the year round, more especially as a new humane muzzle had been invented which afforded a dog the same freedom and comfort as though it were practically unmuzzled.—Mr. Walter Long replied that he was happy to say the number of cases of rabies reported during the present year showed a distinct improvement as compared with the corresponding period of 1895, but the disease was still at a much higher point than it had ever been since it was first brought within the scope of the Diseases of Animals Acts, and he was afraid it would give them much cause for anxiety for some time to come. In these circumstances it must be very doubtful whether the existing system under which the imposition of muzzling regulations was practically left to the local authorities was at all a satisfactory one, and he should be glad to keep the suggestion of his hon friend in view, and to give it full consideration when he received the report of the Departmental Committee, which was now taking evidence as to the working of the dog laws generally.

Treatment of Dog Bites in Ireland.

Mr. M'Cartan asked the Chief Secretary to the Lord-Lieutenant of Ireland, with reference to the case of a poor woman, the wife of a ploughman, who had been severely bitten by a mad dog near Ballymena, whether he was aware that the Ballymena Board of Guardians, upon application being made on Dec. 7th last, unanimously decided to send her for treatment to Mr. Patrick M'Govern of Glangevlin, county Cavan, by whom she was restored to health; that Mr. M'Govern, after having been successful in his treatment, was obliged to sue the guardians for payment of his bill; and that the guardians took defence on the ground of illegality or otherwise, and with what result. And whether, considering the much higher percentage of cures in the cases sent to Mr. M'Govern than in those sent to the Pasteur Institute in Paris, and considering the expense as well as the time and fatigue involved in sending such patients to Paris, he would make inquiry and arrange that the boards of guardians might pay Mr. M'Govern his bill when they sent patients to him for treatment in such cases.—Mr. Gerald Balfour, in reply, said it was a fact that the Ballymena guardians decided to send the wife of a labourer who had been bitten by a dog pronounced to be mad to Mr. M'Govern for treatment, but they were informed by the Local Government Board that any expenditure so incurred would be liable to disallowance by the auditor, and subsequently, on application being made for payment of Mr. M'Govern's fee, it was pointed out to the guardians that as Mr. M'Govern's was not a hospital within the meaning of Section 7 of the Act 25 and 26 Victoria, cap. 83, the guardians could not legally expend the rates in this manner, and that the board had no power to sanction the payment as requested. Mr. M'Govern then sued the guardians for recovery of the fee, but the case was dismissed at quarter sessions on the ground that he was not a medical practitioner and could not recover fees. The Local Government Board could only recognise as hospitals such institutions as were under the professional control and management of duly qualified medical practitioners and in which the treatment was openly avowed and subject to proper investigation.

FRIDAY, JULY 24TH.

Volunteer Medical Staff.

Dr. Farquharson asked the Under Secretary of State for War whether he was aware that a good deal of dissatisfaction exists in the Volunteer Medical Staff at the withholding from them of the outfit grant of £10 on appointment and the further grant of £10 after passing through a course of instruction allowed to their combatant brethren; and would he endeavour to secure uniformity of treatment in this matter.—Mr. Powell Williams, Financial Secretary to the War Office, replied, saying that the outfit allowance to combatant volunteer officers was granted in order that it might reduce the difficulty in obtaining officers. The conditions as regards medical officers were not similar.—Dr. Farquharson: In what respect are they not similar?—Mr. Powell Williams: That is set forth, I think, in the answer I have given to the question. There is no difficulty in obtaining volunteer surgeons and there has been a difficulty in obtaining combatant volunteer officers.—Dr. Farquharson: But supposing there is a difficulty?—Mr. Powell Williams: I cannot suppose anything so horrible.

MONDAY, JULY 27TH.

Medical Service on the Gold Coast.

Dr. Farquharson asked the Secretary of State for the Colonies if he would explain the reason for the inequality of treatment which exists between the native and European medical men officially employed on the Gold Coast, under which the English surgeons get leave every year, and when they come to Europe, not only have a free passage, but full pay during their absence from the colony, whereas their native brethren have to wait several years before they can obtain a temporary release from their duties, and have then to pay their passage and only receive half-pay for half the period of their leave.—Mr. Chamberlain replied that this treatment was not peculiar to medical men, but the Colony could not afford to give the same terms as to leave which were necessary to enable Europeans to work on the Gold Coast to men who, being natives, were inured to the climate and did not want a frequent change to a cold climate.

TUESDAY, JULY 28TH.

Cost of Water-supply.

Mr. Chaplin, replying to a question on this subject, said that the charges which the London water companies were authorised to make for the supply of water for domestic purposes were regulated by the Local Acts of the companies and the Water Rate Definition Act, 1885. They depended to a great extent on the rateable value of the premises supplied. It would no doubt happen that if the rateable value of a house was increased without any circumstances requiring an additional water-supply for domestic purposes the company would benefit by the change. On the other hand, where a house became diminished in value—as, for instance, in consequence of a change in the character of the neighbourhood and the rateable value was reduced—the company lost by the alteration. He had no means of forming an accurate opinion as to the extent to which the different London water companies were affected by such changes. If the charges for water supplied for domestic purposes were regulated, as had been suggested, by the amount of water consumed the effect would be to increase the charges for water supplied to the crowded dwellings of the poor whilst it would reduce the charges on the larger houses.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BACK, H. H., M.B. Lond., M.R.C.S., has been appointed Medical Officer for the Sparham Sanitary District of the Mitford and Launditch Union.

BOWES, J. A., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Medical Officer to the Herne Bay Cottage Hospital.

CALEY, H. A., M.D., M.R.C.P., has been appointed Physician in Charge of Out-patients, St. Mary's Hospital.

CHATELIER, J. E. A., M.B., C.M. Edin., has been appointed Medical Superintendent to the City Hospital, Little Bromwich, Birmingham.

CRUICKSHANK, MARY H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Third Assistant Medical Officer at the Constance-road Infirmary, Camberwell Union.

DEWAR, W. J., M.B., C.M. Aberd., has been appointed Medical Officer for the Infirmary, Arbroath.

DYER, C. HAROLD, M.B., C.M. Aberd., has been appointed Medical Officer of Health to the Cleckheaton Urban District Council.

EATON, JAMES, M.R.C.S., has been re-appointed Medical Officer of Health for the Grantham Rural Sanitary District.

GABRIEL, C. L., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Gundagai District Hospital and Benevolent Society, New South Wales.

GARRETT, W. F., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Friendly Societies in Brisbane, Queensland.

GOULD, A. PEARCE, M.S. Lond., has been appointed Surgeon-in-Charge of the Out-patient Cancer Department of the Middlesex Hospital, W., vice Andrew Clark, who continues as Surgeon to the hospital.

HALL-WRIGHT, FRANCIS WYLLIE, has been appointed one of the Government Medical Officers to British Honduras.

HAYWARD, A. E., M.R.C.S., L.S.A., has been appointed Medical Officer for the Second Sanitary District and the Workhouse of the Guiltcross Union.

HEYGATE, F. N., M.R.C.S., has been appointed Medical Officer for the First Sanitary District and the Workhouse of the Petworth Union.

KIDD, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Superintendent to the new West Sussex Lunatic Asylum at Grayling Wells.

LAWSON, ARNOLD, M.D. Brux., F.R.C.S., L.R.C.P. Lond., has been appointed Ophthalmic Surgeon to the Paddington-green Children's Hospital.

LEA, ARNOLD W. W., M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Assistant Physician to the Clinical Hospital for Women and Children, Manchester.

LEWIS, T. W., M.D. Irel., L.R.C.S., has been appointed Medical Officer for the Kingscliffe Sanitary District of the Oundle Union.

LORD, S. T., L.R.C.P. Lond., M.R.C.S., has been appointed a District Medical Officer of the Rochdale Union.

MACLAREN, J. P., M.B., C.M., B.Sc. Glasg., has been appointed Medical Officer to the Claygate Union.

MARSHALL, H. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed an Honorary Assistant Physician to the Sydney Hospital, New South Wales.

MEAD, G. B. O., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health for the Newmarket Urban Sanitary District.

MORRIS, R. A., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Morpeth Union.

MOYNIHAN, B. G. A., M.S. and M.B. Lond., F.R.C.S. Eng., has been appointed an Honorary Assistant Surgeon to the General Infirmary at Leeds.

NEILL, L. E. F., M.B., Ch. M. Syd., has been appointed an Honorary Assistant Surgeon to the Sydney Hospital, New South Wales.

NEWMARCH, B. J., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Assistant Surgeon to the Sydney Hospital, New South Wales.

PETHYBRIDGE, W. L., M.D., B.Sc. Lond., has been appointed Assistant Physician to Plymouth Public Dispensary.

PROUDFOOT, F. G., M.B., M.S. Edin., has been appointed House Physician to the Radcliffe Infirmary, Oxford.

ROTH, WALTER E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Bourke District Hospital, at Normanton, North Queensland, vice A. S. Patton, resigned.

SCOTT, D. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Llanblister Sanitary District of the Knighton Union, vice E. Chesman.

SHARPLEY, J. E., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Kirton-in-Lindsey District of the Gainsford Brigg Union.

SMITH, W. R., M.B., M.S. Edin., has been appointed Physician Superintendent to the Adelaide Hospital, South Australia, vice J. C. Buckley, resigned.

SPENCER, W. G., M.B., B.S. Lond., F.R.C.S., has been appointed Examiner in Physiology for the Second Examination of the Royal College of Surgeons of England.

SWINHOE, G. R., L.R.C.P. Lond., M.R.C.S., has been appointed a Certifying Surgeon under the Factory Acts, vice G. M. Swinhoe, resigned.

TEMPLETON, GEORGE, M.B., M.S., F.R.C.S. Eng., L.R.C.P., has been appointed Assistant Surgeon to the North-West London Hospital, Kentish Town-road, N.W., vice C. Gordon Brodie, resigned.

TODD, H. B., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health for Charlton Kings, Cheltenham.

TOWLE, W. B., M.D., Ch. M. Montreal, has been appointed an Honorary Surgeon to the Gympie Hospital, Queensland.

WEBSTER, J. H., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health by the Whittlesea Rural District Council.

WHITEFORD, C. HAMILTON, M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Provident Branch of the Plymouth Public Dispensary, vice W. A. Buchan, resigned.

YOUNG, E. B., M.B., C.M. Edin., has been appointed Medical Officer for the Infirmary, Arbroath.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238, Gray's-inn-road, W.C.—House Surgeon.

CITY HOSPITAL, BIRMINGHAM.—Resident Clinical Assistant. Board and residence provided.

CUMBERLAND INFIRMARY, Carlisle.—House Surgeon for one year. Salary £70 per annum, with board, lodging, and washing.

EARLSWOOD ASYLUM FOR IDIOTS, Redhill, Surrey.—Medical Superintendent. Salary £500, with furnished residence in the building, together with coals and gas. Applications to be addressed to the Board of Management, at the Offices, 36, King William-street, London-bridge, E.C.

GENERAL HOSPITAL, Nottingham.—House Surgeon for two years. Salary £100, rising £10 a year to £120.

GLASGOW SAMARITAN HOSPITAL FOR WOMEN.—Surgeon.

HALIFAX INFIRMARY AND DISPENSARY.—Assistant House Surgeon, unmarried. Salary £50 per annum, with residence, board, and washing.

LEICESTER INFIRMARY.—Assistant House Surgeon for six months. Honorarium £21. Board, residence in the Infirmary, and washing provided.

LINCOLN COUNTY HOSPITAL, LINCOLN.—Assistant House Surgeon for six months. An honorarium of £10 and board, residence, and washing provided.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer for six months. Salary £30 per annum, with board, attendance, and washing.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Assistants. Board and residence provided.

POPLAR HOSPITAL, Blackwall.—Qualified Dispenser. Salary £1 per week.

ROYAL ISLE OF WIGHT INFIRMARY AND COUNTY HOSPITAL, Ryde.—House Surgeon and Secretary. Salary £60 per annum, with residence, board, and washing.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Assistant Resident Medical Officer, unmarried. Salary £70 per annum, with board and lodging in the hospital. Applications to the Board of Management, to the London Office, 34, Craven-street, Charing-cross, London, W.C.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Assistant House Surgeon for six months. Salary £50 per annum, with board and lodging. Stimulants and washing not provided.

SHOREDITCH INFIRMARY, 204, Hoxton-street, N.—Locum Tenens for three weeks. Terms, 3 guineas a week and resident allowances. Applications to Dr. Forbes, Medical Superintendent.

SUFFOLK COUNTY ASYLUM.—Assistant Medical Officer, unmarried. Salary to commence at £120 a year, rising £10 yearly to £140, with board, lodging, &c., but without alcohol. Applications to Resident Physician, Suffolk County Asylum, Melton, Woodbridge.

Births, Marriages, and Deaths.

BIRTHS.

CARRELL.—On July 24th, at Woodlands-road, Ilford, the wife of G. N. P. Carrell, L.R.C.P. Lond., M.R.C.S., of a daughter.

HARDEN.—On July 20th, the wife of E. H. T. Harden, M.R.C.S., L.R.C.P. Lond., St. Mawes, Cornwall, of a son.

LUCAS.—On July 27th, at Wimpole-street, W., the wife of R. Clement Lucas, B.S., M.B., F.R.C.S., Surgeon to Guy's Hospital, of a son.

WALLACE.—At his residence, 50, Park-street, Calcutta, on June 15th, 1896, the wife of James Robert Wallace, M.D. Brux., L.R.C.P., L.R.C.S. Edin., L.M., L.S.A. Lond., of a daughter.

MARRIAGES.

ATKINSON—WOODWARD.—On July 27th, 1896, at St. John's Church, Higher Broughton, by the Rev. H. Lomax, of St. John's Thorpe, near Halifax, Robert Atkinson, M.R.C.S. Eng., Cliffe Cottage, Ripponden, to Louisa Lydia, youngest daughter of the late E. J. Woodward, Notting-hill, London.

BARR—BOYD.—On May 20th, at St. Peter's, Takapuna, Valentine Herbert Barr, M.R.C.S., L.R.C.P., L.S.A., youngest son of the late Francis George Barr, R.N., of North End, Portsmouth, to Eugeine, eldest daughter of George Boyd, R.N., of Strathmartin, Lake Takapuna, Auckland, New Zealand.

RENTZSCH—SAVELL.—On July 25th, 1896, at Holy Trinity Church, Wallington, by the Rev. Lord Victor A. Seymour, M.A., Rector of Carshalton, assisted by the Rev. J. H. Lupton, D.D., Surmaster of St. Paul's School and Preacher of Gray's Inn, and the Rev. R. A. Boyle, M.A., Vicar of the Parish, Sigismund Henry Rentzsch, L.R.C.P. Lond., M.R.C.S. Eng., the Firs, Waltham Cross, Herts, to Katharine Maud, daughter of the Rev. W. J. Savell, M.A., LL.M., Aldwick, Wallington, Surrey.

RUXTON—RICHARDSON.—On July 22nd, at St. Cuthbert's Church, Bensham, Gateshead, William Ledingham Ruxton, M.B., son of the late John Ruxton, M.D., of Foveran, Aberdeen, to Nora, youngest daughter of the late Edward Richardson, of Cotfield House, Gateshead.

DEATHS.

BOWMAN.—On July 17th, at Welbeck street, W., suddenly, Henry Moore Bowman, M.D., M.R.C.P., Assistant Demonstrator of Physiology at St. Bartholomew's Hospital, and Assistant Physician to the Royal Chest Hospital, City-road, aged 29.

CHRISTMAS.—Suddenly, at Wheatley, Coventry Park, Streatham, S.W., on July 25th, Charles Denn Christmas, M.D. Brux., L.R.C.P. Lond., M.R.C.S., &c., late of Watford.

COWAN.—On July 27th, at Brooksby, Largs, N.B., John B. Cowan, M.D., LL.D., Emeritus Professor of Materia Medica in the University of Glasgow.

PHILLIPS.—On July 22nd, at Wimpole-street, Henry Astley Phillips, M.D., of Gravesend, aged 40.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 30th, 1896.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min Temp	Rainfall	Remarks at 8.30 A.M.
July 24	29·95	S.W.	67	62	119	76	58	...	Cloudy
,, 25	29·80	S.	70	63	115	78	61	...	Cloudy
,, 26	29·83	S.W.	71	65	105	75	64	.	Cloudy
,, 27	29·95	N.W.	62	57	120	72	55	0·63	Cloudy
,, 28	30·16	N.E.	61	55	111	73	55	...	Fine
,, 29	29·96	S.W.	63	59	119	76	54	...	Fine
,, 30	29·79	S.W.	65	62	90	71	62	...	Raining

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

The Index for the first half-yearly volume for 1896 was given in the issue of June 27th. The practice of supplying loose copies has been discontinued the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1896 are now ready. Bound in cloth, gilt lettered, price 18*s.*

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, or post free 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

THE CAUSATION OF ADENOIDS.

To the Editors of THE LANCET.

SIRS,—No question is more often asked at present than the one—Why is it that adenoids are so much more frequent now than formerly? Even allowing for improved diagnosis there must surely be some cause, people say, to account for such an extraordinary increase in the number of cases. I would suggest, is not that cause to be found in the all but general use of the abomination called the "baby's comforter"? The effect of the constant suction by the child is to produce a partial vacuum in the upper pharynx and a drawing together of the tissues with capillary dilatation in the softer parts, which in time leads to the formation of a granulation tissue. In numerous cases inquired into it was found almost invariably that the child had been devoted to its comforter or had equally persistently sucked its thumb. In some cases I have watched the development of adenoids in children whose mothers could not be induced to do away with the comforter. I do not suggest this as the only cause, but I am sure it is a very frequent one, especially in strumous children with lax tissues. If mothers would recognise the evil fewer children would be seen sleeping with a comforter in their mouths.

I am, Sirs, yours faithfully,

Gledhow-gardens, S.W., July 27th, 1896. GEO. E. TWYNAM.

THE PRICE OF MEDICINE CHESTS, &c.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me where it is possible to purchase medicine chests at anything like a reasonable price? It is simply scandalous the charge for such made to our profession. Surely some leather portmanteau-maker, if assured of a sale, would turn out some portable medicine chests and bags after a few approved patterns at a fair price. I have to-day examined a list. One is priced empty at close on £3. The profits of such charges must be enormous. By portable I do not mean tabloids of necessity. It is not every surgeon or patient who prefers them. Every country practitioner requires an emergency case of medicines and a larger case for house dispensing, and unless manufacturers abate one half of their profits we shall be compelled to have recourse to the portmanteau-maker.

I am, Sirs, yours faithfully,

COUNTRY PRACTITIONER.

P.S.—On looking over a list of decapitating scissors I see a guinea is the price. Surely 5*s.* should purchase one.

Mr. J. Sheridan Garratt.—Our correspondent's suggestion has the merit of extreme simplicity, but we doubt if the responses would be so large if the collection were made twice a year.

THE "DOYENNE" OF CENTENARIANS.

THERE has just died at Aniche, near Douai, in France, Madame Daniel Rostkowski, aged 112 years. Joséphine Masurkiewicz, widow of Rostkowski, was born on March 19th, 1784, at Warsaw. Her husband was an adjutant-major of the 6th Polish regiment of the line and took part in many battles. In consequence of a sanguinary engagement in Poland, when the regiment in which she acted as "aide-chirurgienne" was overwhelmed by numbers, Madame Rostkowski came to France. During the campaigns in which she took part as "aide-chirurgienne" of the first-class she was wounded several times. Having entered the service in 1831 she was seventy-one years of age when she was on duty in the French army during the Crimean War. Madame Rostkowski had fifteen children—twelve sons and three daughters—all born in Poland. She was decorated with the Military Cross of Stanislas, with the Order of the Medjidie, and with the Crimean medal.

Mr. Geo. Goldstone.—We cannot trace the receipt of the specification.

ATROPINE IDIOSYNCRASY.

To the Editors of THE LANCET.

SIRS,—The following instance of marked idiosyncrasy to a drug has seemed to me sufficiently singular and of special interest to make it worth my while to give you just a brief account of my own personal experience in this matter.

My vision is, I may say at the outset, as near perfect as human vision can be. One minim of the solution of sulphate of atropine (B.P.) added to one and a half fluid ounces of water, or, in other words, diluted to $\frac{1}{720}$th the official strength, was applied to my eyes thus: the finger was just moistened with this solution and then brought into momentary contact with each lower eyelid, on its mucous surface, of course. The result was marked and persistent dilatation of both pupils within five minutes, lasting from twelve to eighteen hours, only slight disturbance of vision, but sufficient to make close accommodation, reading, &c., a little irksome. A solution just double the above strength dropped into each eye rendered close accommodation quite impossible for about twenty-four hours, after which improvement, even with frequent use of eserine, was only gradual. One minim of the B.P. liquor taken internally with a wineglass of water caused also a slight but long-lasting visual disturbance and a most unpleasant dryness of the mouth, nose, and throat, a complete loss of appetite, slight visual hallucinations—such as an apparent wriggling or creeping movement of the pattern on the wall-paper in the room—a rather marked feeling of lassitude, and especially extreme weakness—almost amounting to partial paralysis—of the lower extremities (this was noticed on waking in the early morning after heavy (?) but nightmare-haunted sleep). The mouth-dryness persisted for two whole days, during which time I felt not only uncomfortable but thoroughly ill. It would be of much interest to me (indeed, it is for this reason mainly that I am writing) to know if this most marked susceptibility to atropine (and it is just so, of course, with belladonna and its preparations, and also with hyoscyamus, only to a less extent) is common or otherwise?

I remain, Sirs, yours faithfully,

July 28th, 1896. PSEUDONYM.

"SEQUAH."

AT Newbury on Friday last a person known as "Sequah" was summoned on two charges by the Excise for selling a preparation and composition which did not bear the Inland Revenue label and for selling medicine liable to stamp duty without a licence. The Somerset House authorities prosecuted and evidence in support of the charges was given by the Excise officer stationed at Newbury. "Sequah" made a statement in which he said that he had been willing to pay a licence, but the authorities would not grant him one to retail medicine from his car. The magistrates imposed a penalty of £2 in each case with costs, amounting to £5 in all.

"THE MANAGEMENT OF INSTITUTE NURSES."

To the Editors of THE LANCET.

SIRS,—It is always painful to real nurses to find members of the medical profession taking the view of them and their work expressed by "A Country Practitioner" in THE LANCET of July 18th. When regarded as a rival instead of a subordinate a nurse is placed in an entirely false position, she dreads being misunderstood, and altogether is certain not to do either her patient or herself full justice. We cannot shut our eyes to the fact that jealousy does exist, and that the general public, through ignorance of the relative positions of the medical man and nurse, fosters it to a certain extent; but the experienced nurse can always, even under the influence of the excitement of afternoon tea with her patients, maintain her proper position and repeat the advice given by Dr. Abernethy under like conditions. Nothing more effectually closes a conversation on "symptoms" than a suggestion that medical advice should be sought.

I have quite recently terminated a six months' engagement as county council lecturer on nursing, where my position was imperilled in the very first week by my refusal to visit and advise on the treatment of a child for whom it was said "the doctor seemed able to do nothing." The county council organising secretary was, I believe, divided in his opinion as to whether it was conscious ignorance or idleness which prompted my refusal. My offer to carry out any treatment prescribed by the medical man which was not understood by the mother of the child did but little towards relaxing the tension of the situation. The lecturers were expected to be willing to advise.

I am, Sirs, yours faithfully,

July 21st, 1896. E. M. H.

I. G.—Undoubtedly the paragraph is in poor taste, but there is no evidence before us that it was inspired by the gentleman who benefits by it.

A CHARMED LIFE.

THE following remarkable case, vouched for by Dr. Maclaud, a French colonial surgeon of the second class, is published in the *Archives de Médecine Navale et Coloniale* for June. On Sept. 14th, 1895, a native was brought to the hospital at Conakry, on the West Coast of Africa, having in a fit of jealousy plunged a knife into his groin on the right side. The wound, directed from below upwards, and from within outwards, commenced at the inguinal ring and was sixteen centimetres in length. There had been very free hæmorrhage, and the man's comrades could find no better way to stop it than by plugging the gaping aperture with coarse shelly sand. "As soon as possible," says Dr. Maclaud, "I set about trying to cleanse the wound by means of repeated washings, but in spite of my utmost care I found it impossible to get rid of all the broken fragments of shell, many of which were firmly embedded in the folds of the intestines. As soon as the major part of the débris was cleared away I was able to satisfy myself that neither the intestine nor the testicle, which constituted the protruding mass, had been injured. I accordingly reduced the testicle and kept it in position with a single catgut suture; but after the gut was returned no fewer than fourteen stitches were required to keep it in its place. I then closed the external wound with sixteen points, but in this case I used Répin silk. The patient's temperature was now taken and found to be 102·2° F. During the day he remained tolerably tranquil, and in the evening he had 250 grammes of rice for his supper. After a good night's rest he awoke free from pain, his temperature was normal, and he passed a copious, semi-formed stool. Up to Sept. 21st matters progressed favourably: the patient remained quite free from fever, his appetite and digestion were both excellent, he had no pain whatever, and there was no suppuration. Thinking himself cured he asked me to discharge him, but I declined to do so. Shortly afterwards, taking advantage of the temporary absence of the ward servant, he left the hospital and fled to his hut, where unfortunately his jealousy was again aroused. Desirous of effectually putting an end to his life he climbed a lofty palm tree and threw himself down from the summit, but apparently all his efforts at self-immolation were destined to fail. With the exception of a contusion or two he sustained no injury, and has now made up his mind to abandon all idea of suicide. The abdominal sutures have held firm, and the man is able to do work requiring the utmost muscular exertion. His cure is perfect, but I often ask myself, 'What can have become of the shelly fragments which remained inside his peritoneum?'"

THE DEFENCE OF SIXPENNY DOCTORS.

To the Editors of THE LANCET.

SIRS,—I thank you for being in accord with a portion of my letter and I am sorry that I shall substitute another journal in place of THE LANCET. I do so to avoid giving you any trouble in future in reading my letters in defence of sixpenny doctors.

Yours faithfully,

Gloucester, July 24th, 1896. A. E. PRICE.

M. C. W.—Our correspondent would seem to have a legal remedy and is advised to consult a solicitor.

"THE USE OF THE LEFT ARM BY NURSES."

To the Editors of THE LANCET.

SIRS,—In connexion with the above I should like to point out a similar preference for the left side generally to the right that I have all my life observed—viz., if you watch labourers at work digging or shovelling, &c., you will see they use the left hand as the fulcrum, thus putting the heaviest work on the left; and if you inquire of them you will find the great majority claim to be right-handed men. Watch the navvy with his heavy pickaxe tearing up the macadamised road, and you will see his left doing the heaviest work. A man carrying a load on his shoulder—such as a ladder, a scaffolding-pole, &c.—has it on the left shoulder. Of course, there are exceptions, but this will in the vast majority of cases be found to be the rule. Some people, to whom I have pointed this out contend that it is the *right-handed* mode of working, but if this is so then I should imagine the majority of our cricketers are left-handed, as they use the right hand for the fulcrum. Those who so contend say that the hand on the top of spade handle, or cricket-bat handle is the one to guide it. This I cannot see. I do not attempt to explain this use of the left hand, but merely point out what I have observed, and should like to see some expressions of opinion on it.

I am, Sirs, yours faithfully,

July 18th, 1896. OBSERVER.

M.D. Lond. is anxious to know of any home or institution where a partially paralysed lad could be received for £1 per week. The circumstances of the parents quite prevent their paying any larger amount.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (5th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (6th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.)

FRIDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY (8th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

During the week marked copies of the following newspapers have been received:—*Halifax Guardian, North Wales Chronicle, Eastern Morning News, Hull Daily News, Huddersfield Chronicle, Scotsman, Birmingham Post, Scarborough Evening News, Sheffield Independent, South Wales Daily News, Manchester Guardian, Northern Echo, Wolverhampton Chronicle, Times of India, Western Daily Mercury, Oban Times, Newcastle Leader, Pioneer Mail, Liverpool Daily Post, Sussex Daily News, Southampton Times, Irish News, Brighton Gazette, Citizen, Builder, Yorkshire Post, Chester Chronicle, Bristol Mercury, Architect, Daily Mail, Leeds Mercury, Sanitary Record, Bradford Observer, Courrier de la Presse, Daily Courier, Nottingham Express, Peterborough Express, West London Indicator, Coalville Times, Doncaster Chronicle, Canterbury Times (N.Z.), Kidderminster Shuttle, Whitehaven Free Press, and Aberdeen Herald, Reading Mercury, Weekly News and Chronicle, Hertfordshire Mercury, Local Government Chronicle, Mining Journal, Surrey Advertiser, City Press, Local Government Journal, St. Bartholomew's Hospital Journal, Sydney Morning Herald, Midland Evening News, Australasian Medical Gazette, Wiltshire Chronicle, Belper Chronicle, Kelso Mail, Liverpool Courier, Western People, Norfolk Daily Standard, Citizen (Gloucestershire), Birmingham Daily Gazette, Westminster Gazette, Evening Dispatch (Edinburgh), Public Opinion, Medical Record (New York), Weekly Free Press, Wheeling, West Middlesex Herald, Brighton Gazette, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Dr. F. H. Alderson, Lond.; Mr. R. Atkinson, Ripponden; Mr. J. W. Arrowsmith, Bristol; Mr. W. J. Addison, Glasgow; Mr. E. V. Allen, Lond.; Messrs. W. H. Allen and Co., Cardiff; Messrs. Allen and Hanburys, Lond.; Académie de Médecine, Paris, Librarian of; *American Medical Review*, New York, U.S.A.; Assistant, Burnley; Ajax, Esher.

B.—Dr. T. S. Brodie, Houston; Dr. K. N. Bahadurji Carlisle; Dr. R. C. Bailey, Lond.; Mr. J. G. Braden, Haywards Heath; Mr. Lennox Browne, Lond.; Mr. Frank Blackley, Lond; Mr. D. P. Bostel, Lond.; Mr. T. H. Brocklehurst, Weymouth; Mr. H. R. Barlow, Manchester; Mr. W. G. Burcombe, Lincoln; Miss Edith P. Bullar, Southampton; Messrs. J. Brinsmead and Sons, Lond.; Birmingham City Asylum, Med. Supt. of; T. B. Browne, Ltd., Lond.

C.—Mr. A. Callois, Paris; Mr. H. O. Colyer, Ryde; Mr. E. G. Cameron, Lond.; Messrs. Condy and Mitchell, Lond.; Messrs. J. and A. Churchill, Lond.

D.—Dr. T. S. Dowse, Lond.; Mr. T. W. Deakin, Lond.; Mr. D. A. De Montbrun, Port of Spain, Trinidad; Messrs. J. Defries and Sons, Lond.; Messrs. S. Deacon and Co., Lond.

E.—Mr. J. Eyr, Lond.

F.—Dr. A. H. Frere, Whitchurch, Salop; Messrs. Fannin and Co., Dublin; Messrs. Forsaiths, Lond.; F.R.C.S., Lond.

G.—Dr. A. Gossage, Lond; Mr. E. W. Graimes, Southsea; Messrs. R. W. Greeff and Co., Lond.; Messrs. Giddy and Giddy, Lond.; Globe Advertising Co., Aston Clinton.

H.—Dr. S. Hyde, Buxton; Dr. S. Hamilton, Glamorgan; Surg.-Lieut.-Col. Hill, Crickhowell; Mr. Jonathan Hutchinson, Lond.; Mr. J. Heywood, Manchester; Halifax Infirmary, Sec. of; *Horse Guards' Gazette*, Editor of.

J.—Dr. J. T. Jones, Eastbourne; J. T. R., Lond.

K.—Dr. S. Kent, Ilfracombe; Mr. T. H. Kellock, Lond.; Mr. B. Kühn, Lond.

L.—Dr. J. F. Little, Lond.; Herrn A. Loew, Comitat, Trencsen, Hungary; Mr. G. Lee, Cork; Mr. A. Longman, Broadchalke; Messrs. Lee and Martin, Birmingham

M.—Dr. Mark McDonald, Waterloo; Dr. J. D. Malcolm, Lond.; Prof. Donald MacAlister, Cambridge; Col. Maxwell, Billière, Pau, France; Mr. J. O. McCreesy, Ivybridge; Mr. E. W. Millwood, Lond.; Mr. A. B. R. Myers, Lond.; Messrs. Mather and Crowther, Lond.; Metropolitan Asylums Board, Lond., Clerk of; Middlesex Hosp. Medical School, Lond., Librarian of.

N.—Messrs. Neyroud and Son, Lond.; Nurses' Coöperation, Lond., Sec. of; National Registration of Plumbers, Manchester, Sec. of.

O.—Dr. L. R. Oswald, Garteosh, N.B.; Mr. W. Odell, Torquay; Mr. J. M. Owen, Fishguard; Mr. F. Orchard, Lond.; One in Disgust, Wilsden.

P.—Dr. W. L. Pethybridge, Plymouth; Brig.-Surg. Robert Pringle, Lond.; Mr. E. B. Pellew, Haltwhistle; Messrs. Parke, Davis and Co., Lond.; Pneumatic Tyre Co., Lond.

Q.—Surg.-Lieut.-Col. R. H. Quill, Chatham.

R.—Dr. W. E. Robertson, Philadelphia, U.S.A.; Mr. Walter Reeve, Lond.; Mr. J. Roberts, Lond.; Mr. F. Rouse, Lond.; Messrs. Reynolds and Branson, Leeds; Royal Isle of Wight Infirmary, Sec. of; Red Cross Germicide Co., Lond., Managing Director of; Resident, Lond.

S.—Dr. P. A. Smith, Glasg.; Dr. G. A. Sutherland, Lond.; Dr. W. S. Saunders, Lond.; Dr. T. D. Savill, Lond.; Mr. A. Stenhouse, Glasg; Mr. J. Lionel Stretton, Kidderminster; Messrs. Street and Co., Lond.; Messrs. Smith, Elder and Co., Lond.; Suffolk County Hosp., Supt. of; Scoble, Edin.

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